

Antiquity

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Editorial Notes

FOR many of our readers this will be their first number of *ANTIQUITY*. They will have read the leaflet which has been circulated, and will have decided to give *ANTIQUITY* a trial. The proof of the pudding is in the eating, and we hope that this one will come up to expectations. We have to cater for all tastes and there is not room for every branch of archaeology to be represented in any single number, but we think that this and the succeeding numbers will be fairly representative. Many readers look for articles about British archaeology, especially when it can be illustrated by air-photographs; they will find something very much to their taste, we think, in the first article, in which Mr R. J. C. Atkinson gives the first adequate account of a very remarkable prehistoric earthwork in Cranborne Chase, called the Dorset Cursus. What it was is still rather mysterious; the name 'cursus' is one that was first used by Stukeley in the 18th century of a couple of shorter, but otherwise similar, affairs near Stonehenge. He thought these were race-courses, and his guess may not have been far out. We know from Homer that funeral games were held at the burial of warriors during the Trojan War, and although these cursuses cannot be precisely dated they are probably not more than a few centuries older.

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Those whose interest is chiefly in classical lands will read Professor T. B. L. Webster's stimulating remarks about the recently deciphered Mycenaean Tablets and their bearing on the interpretation of Homer. These tablets have proved to be inscribed in an archaic form of Greek; they are contemporary, in an archaeological sense, with the heroic age about which Homer wrote, and therefore of prime importance. Like the archaeological remains they show that 'Homer has a poetic ancestry which stretches back into the Mycenaean age' (p. 13). But Homer also modernized some of his descriptions, of chariots for instance; and other poets, dramatists and artists in other ages have done likewise.

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Photography is an indispensable adjunct of all archaeological work, whether it be done in museums or in the open air, and particularly of course of excavation. It is an art that has been surprisingly neglected even by some excavators whose other work has been of a high standard. As in so much else General Pitt-Rivers was a pioneer in the use of photographs to illustrate and record his excavations. Now Mr Cookson, who has worked as a photographer with Sir Mortimer Wheeler for many years, has written a

book about it, reviewed on pages 15 and 16 by Miss Alison Frantz, who of late years has been doing the photography for the American excavations in the Agora at Athens. Both the reviewer and the reviewed are experts and enthusiasts with a record of achievement that is familiar to all who read archaeological literature. Indeed, just as the art critic can often identify a painter by his style, the reader can sometimes identify the photographer in the same way. The present writer once came upon a photograph of a peculiarly difficult object; it could only be, he felt sure, by one of these two people—and it was. Readers of Sir Mortimer's latest excavation report (Stanwick) will find there superb examples of Mr Cookson's skill; full advantage has been taken of lighting, and the results (particularly the frontispiece) are most pleasing works of art as well as adequate records of archaeological facts. With a little thought and perseverance it is generally possible to get a photograph which is aesthetically pleasing without any loss of archaeological efficiency.



One of the problems that still remains obscure is the continental home of the people who invaded and settled in Britain after its abandonment by the Romans. It is a problem that closely concerns us because we are their descendants. In his review of Dr Maurer's book Dr Tischler describes some of the chief tribal groups that were on the move in what is now Germany and Holland during the period of the great migrations, and just before it. Clearly the term 'Anglo-Saxon' denotes an amalgam of many cognate cultures.



For many years it has been known that there existed in the Aleppo district of Syria a curious type of house of a very primitive kind resembling a beehive. But it was difficult to find any adequate description of them. They are of interest because they appear, from their very nature, to be a survival from a far distant past. Indeed the oldest known example of such structures, though not of identical form, are the tholoi of Arpachiyah which is not a very long way from Aleppo. Mr Copeland describes these queer beehive villages on pages 21 to 24.



These articles deal with British prehistory, the beginnings of European literature, archaeological technique, European cultural origins and a strange survival. That is perhaps not a bad sample of the sort of thing we aim at in this journal. There are inevitably certain lacunae; but many of these will be filled in later numbers. We have a review by Professor Pericot of some recent rather startling correlations which Professor Menghin, now of Buenos Aires University, has claimed to detect between the earlier archaeology of South America and the Old World. We hope also to publish an account of recent excavations in Malaya, where fragments of imported Greek vases have been found. There will be an article on recent excavations in Crete on a neolithic site, and another on Mycenaean Athens.



The problem of reviewing books is a difficult one because of space. There is bound to be a certain lag in publication—and for this there are, we regret to say, sometimes other reasons as well. But we know the difficulties; reviewers are all busy people, and some are engaged on important excavations and other researches which occupy all

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their time. Moreover, if we are to secure the best criticisms we must often go to distant parts of the world, and this and the subsequent proof-correction takes up time. Readers, in return, can be sure of getting honest opinions by those best qualified to judge, and it seems to us that this is more important than the time-element.



Thus it will be seen that ANTIQUITY is not just a journal published by archaeologists for other archaeologists, and specializing in some particular aspect or period or country. It covers the whole field and it is kept going by its readers, the majority of whom are not archaeologists in the strict sense, but just intelligent people who are interested in archaeology and like to hear about it. It was for them that ANTIQUITY was founded and without their support it could not exist. Indeed, without them there would be little or no archaeology today! For the day of the rich individual patron is over; archaeology is kept going by the taxpayer, and it is only right that, in return, an attempt should be made to explain to him and her what it all means. We make the attempt in ANTIQUITY, by publishing popular but authoritative articles, notes and reviews dealing with matters of current interest and importance. Our readers can help us by suggesting subjects of interest to themselves, particularly if they can also suggest someone to write about it. It was thus that we obtained Professor Webster's article in this number, and we wish to thank the reader who made so happy a suggestion.



We have to keep up and increase our circulation at intervals by the distribution of leaflets, sent out either directly by ourselves or indirectly by societies, whom we take the opportunity of thanking most sincerely for their cooperation. It is inevitable that many of these leaflets will be sent to those who already take in ANTIQUITY regularly, and we hope they will excuse this and understand that it cannot be avoided when thousands are circulated. We have to put up with the same thing ourselves; we recently received several leaflets urging us to buy *Archaeology in the Field*!



One of our readers in the U.S.A. writes, apropos of Dr Glyn Daniel's article on 'Television' in the December ANTIQUITY, saying that the first archaeological television programme was put on by Dr Froelich G. Rainey, Director of the University Museum of Philadelphia, and some of his colleagues, in 1948, under the title of 'What in the World.' It has continued as a great national success down to the present time. Sir Mortimer Wheeler took part in it as a guest performer in 1950, and introduced the idea to the B.B.C. on his return to England, where it eventually took shape as the well-known programme of 'Animal, Vegetable or Mineral'.



At the time when this number of ANTIQUITY is published the Editor expects to be abroad where he will be for the whole of March. During his absence letters are not forwarded, and he apologises in advance for not replying to them until he returns. This of course does not concern matters dealt with by his partner, Mr H. W. Edwards, the publisher. The Editor expects to be back at Nursling about the beginning of April.

The Dorset Cursus

by R. J. C. ATKINSON

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OF all the early prehistoric monuments of Britain the Dorset Cursus is both the largest and at the same time one of the least known. Its claim to pre-eminence in terms of mere size is sufficiently established by the facts that it is six miles in length, contains an area of two hundred and twenty acres, and in its original state comprised a volume of earthwork amounting to some six-and-a-half million cubic feet. The significance of these figures may better be appreciated by a comparison with Avebury, which had originally an earthwork volume of about three-and-a-half million cubic feet, or with the Stonehenge Cursus, which is a little less than one-and-three-quarter miles in length, and encloses only seventy acres.

The Dorset Cursus follows an undulating and slightly sinuous course across the downs of Cranborne Chase, immediately sw. of the Dorset-Wiltshire border. Its general direction is from sw. to ne., running roughly parallel to and half-a-mile se. of the present main road (A.354) from Blandford Forum to Salisbury. The central portion of the Cursus, a length of about three miles from the crest of Gussage Down to a point half-a-mile sw. of the village of Pentridge, has long been known and marked on the maps of the Ordnance Survey. This portion appears to have been observed first by William Cunnington early in the 19th century, and was recorded by him in his manuscript notes now preserved in the library of the Society of Antiquaries¹. This account was used by Sir Richard Colt Hoare, who evidently considered the Cursus and the later earthworks associated with it on Gussage Down to be of sufficiently outstanding interest to warrant their inclusion in the second volume of his *Ancient Wiltshire*², even though they lay outside the boundary of that county.

Later references to the Cursus add but little to Colt Hoare's original publication. Warne, reproducing Hoare's plan³, evidently had an inkling of the continuation of the earthwork beyond its visible ends, though the course he suggested was inaccurate. Sumner mentioned it briefly in connection with the settlement on Gussage Down⁴, and recorded for the first time the incorporation in one of the banks of the Cursus of the long barrow se. of Oakley Down⁵. Crawford and Keiller, illustrating the Gussage Down sector with a vertical air-photograph⁶, accord it only a passing mention, though some years later Crawford, in a prescient note⁷, suggested that it was highly probable that the Cursus extended for at least another mile and three-quarters⁸. The latest notice of the

¹ I am indebted to Lieut.-Colonel R. H. Cunnington for drawing my attention to this reference.

² Colt Hoare, *Ancient Wiltshire*, II (1819), 33.

³ Charles Warne, *Ancient Dorset* (1872), 26-8.

⁴ Heywood Sumner, *Ancient Earthworks of Cranborne Chase* (1913), 73-4.

⁵ Sumner, *op. cit.*, 50.

⁶ Crawford and Keiller, *Wessex from the Air* (1929), 113 and pl. xvi.

⁷ *Ant. Journ.*, xv (1935), 78.

⁸ Dr Crawford tells me that his suggestion referred to a possible extension sw. from Gussage Down, to and beyond Thickthorn Down, and was based on air-photographs (lost in the war) and suggestive alignments of field-boundaries, but not on actual field-work. The actual course of this missing section of the Cursus differs slightly from that suggested.

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monument was that published by Dr J. F. S. Stone when discussing the affinities of the Stonehenge Cursus⁹.

In 1948 the present writer was led to undertake a detailed examination of the Dorset Cursus, as part of the comparative study of the analogues of the similar but smaller cursus then under excavation at Dorchester-on-Thames. Fieldwork aided by air-photographs¹⁰, carried out at intervals up to the spring of 1953, has made it possible to add some one-and-a-half miles to each end of the Cursus as known hitherto, and to locate its extreme ends on Thickthorn Down and Bokerly Down respectively. Its course, where not visible in relief on the surface, has been established by probing the ditch-filling at intervals of about 200 feet, and has subsequently been confirmed by air-photographs kindly taken at the writer's suggestion by Dr J. K. St. Joseph, four of which are here reproduced (PLATES I-IV).

Like similar monuments elsewhere, the Cursus consists of a long narrow enclosure, bounded on each side by parallel lines of bank and external ditch, with the short ends closed by transverse stretches of earthwork continuous with the sides. Its full extent is shown in FIG. 1. Owing to its great length it has been necessary to reproduce the plan at a relatively small scale, which makes it impossible to show accurately a number of minor irregularities referred to in the detailed description which follows.

The sw. end of the Cursus lies on Thickthorn Down (31/970124) immediately NW. of a small long barrow (*Map of Neolithic Wessex* [1933], no. 163), on the broad grass verge which borders the NE. side of the road from Farnham to Horton (PLATE I). It consists of a three-sided rectangular bank with external ditch, the bank still standing where best preserved to a height of about 4 feet above the surrounding turf. The over-all measurement of the earthwork is about 60 feet, but the bank is undoubtedly much spread on both sides, and may originally have been separated from the ditch by a narrow berm. The distance between the centres of the ditches is 300 feet. The transverse end is well preserved, and is slightly convex in plan. The corners are rounded, and the bank there higher than elsewhere, owing to the additional spoil derived from the ditch on both sides of the angle. The two sides, on the other hand, have been breached and largely obliterated by tracks running parallel to the present road, especially near the hedge. This destruction, coupled with the virtual absence of visible signs of the continuation of the earthwork into the arable ground NE. of the hedge, has been responsible for the true nature of the monument having passed for so long unrecognized. The site was planned by Sumner¹¹, but his figure is inaccurate in showing the end of the Cursus as concave, and in restoring it conjecturally as a square enclosure.

The NW. angle of the earthwork is approached from the sw. by a triple dyke of three parallel banks and ditches, facing SE. As it comes close to the Cursus, the line of the dyke swerves to the NW., presumably to avoid the bank and ditch of the former, which must already have been in existence at the time (PLATE I). The dyke continues for some distance down the slope to the NE., parallel to the NW. side of the Cursus, but its full extent in this direction is unknown.

In the arable field immediately NE. of the road the Cursus can at first be traced in slight relief on the surface, and as well-defined soil-marks. An air-photograph taken by the writer in the summer of 1949 showed a distinct and sharp-edged band of mole-heaps,

⁹ *Arch. Journ.*, CIV (1948), 10-11.

¹⁰ In particular a very fine sortie taken by the R.A.F. in 1943 (no. HLA/651), at a scale of approximately 1 : 15,000, kindly lent by Mr Brian Hope-Taylor, F.S.A.

¹¹ Sumner, *op. cit.*, 35-6, pl. xvi.

suggestive of a buried ditch, running north-eastwards from the hedge for about 150 feet, parallel to and some 100 ft. within the SE. side of the Cursus. No corresponding mark can be seen, however, on other air-photographs, nor has probing on the site revealed any trace of a ditch.

Below the 300 feet contour, where the northern slope of the down steepens, surface indications of the Cursus fade out, and only a faint soil- or crop-mark remains. The course of the two ditches has been traced by probing, however, as far as the nearer boundary of the water-meadows fringing the banks of the Gussage Brook in the valley bottom. Here, after swinging slightly southeastwards as it descends the slope, the SE. ditch runs parallel and very close to the hedge which points towards the buildings of Higher Farm beyond the stream (PLATE 1). In the spring of 1953 it was partially exposed in section in a hole dug for a fence-post against the hedge.

Neither ditch can be traced across the water-meadows, where they have presumably been buried by alluvium or destroyed by erosion, but the fact that the Cursus crossed the stream is shown by its re-appearance on the higher ground NE. of Higher Farm, the SE. ditch being represented, apparently, by a linear depression, probably deepened in recent times, extending for some 200 feet immediately behind the back door of the farmhouse. From here both ditches are visible in part as soil-marks, and have been traced throughout by probing, to the crest of Gussage Down (PLATE 1).

The complex of earthworks on Gussage Down has been described and illustrated more than once, and needs no detailed mention here. The most prominent feature is the small long barrow (no. 164) standing on the summit of the down between the two ditches of the Cursus, which are here visible on the surface, though much denuded by cultivation. Though the axis of the long barrow is at right-angles to the line of the Cursus at this point, the mound is not centrally placed between the ditches. From this it may be inferred that the barrow is older than the Cursus, and that the latter was aligned so as to enclose it. Certainly the long barrow, which is visible for miles around, would form an obvious sighting-mark for the alignment of the Cursus, quite apart from any ritually-determined intention on the part of the Cursus-builders to incorporate the barrow within the compass of their monument.

North-east of the long barrow, on the slope of the down, a number of lynchets of a group of Celtic fields are super-imposed upon the course of the Cursus, whose banks can also be seen in places to have served as field-boundaries. Above and below the 300 feet contour two of these lynchets span the Cursus approximately at right-angles. As the course of the side-ditches makes a pronounced swerve at this point, it was suspected that the Cursus might originally have ended here, with a subsequent prolongation north-eastwards, as is clearly the case on Bottlebush Down a mile and a half further on. Had this been so, either of these transverse lynchets might later have formed upon and have concealed the original end. Careful probing on both sites failed, however, to reveal any trace of a buried transverse ditch, and it must therefore be assumed that the Cursus was continuous down the slope of the hill, and indeed as far as the 'junction' on Bottlebush Down.

At the bottom of the slope of Gussage Down the Ordnance Map, followed by Sumner¹², marks a sudden diminution in the width of the Cursus, the SE. ditch making a sharp double right-angled bend and continuing thereafter parallel to and within its former course. Probing showed that this marked course is in fact that of a prominent lynchet (shown on the plan, FIG. 1, immediately above the word 'lynchets'), and that the ditch of the Cursus continues on its previous course, though invisible on the surface.

¹² Sumner, *op. cit.*, pl. XLIV.

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From this point onwards, across the nearly flat floor of the dry valley between Gussage and Wyke Downs, the Cursus cannot be traced in relief, owing to intensive cultivation, but its course is clearly visible from the air (PLATE II). The SE. ditch is regular, with only one marked change of direction soon after it emerges from the wind-break plantation of conifers associated with Down Buildings. The other ditch, however, can be seen to follow a markedly sinuous course between this point and the road which follows the valley floor at the foot of the rise to Wyke and Bottlebush Downs.

From this road the Cursus climbs the hill in a straight line, crossed obliquely by the Roman road (Ackling Dyke) where it skirts the plantation, and comes to an end half way up the slope of Bottlebush Down (PLATE III). Here the two sides are joined transversely by a ditch and bank still visible on the surface, though now much flattened. The relative positions of the ditch and bank, and their continuity with the sides, show beyond doubt that they belong to the SW. portion of the Cursus already described, and that the continuation of the earthwork north-eastwards must be a later addition.

This continuation is set at an angle to the line of the earlier structure. It is to be supposed that when it was added the original transverse end of the earlier section was defaced wholly or in part, in order to allow free passage. But modern cultivation has clearly altered the surface so much at this point that only excavation can now reveal the extent of this defacement.

From this point the side earthworks continue up the slope to the crest of the down, where it is crossed by the road from Handley to Cranborne. In this sector the NW. side has been almost obliterated by ploughing, but the other side, crowned by a wire fence, affords the best example of the original appearance of the earthwork. A profile measured here is shown in FIG. 1.

On the crest of the down, immediately NE. of the road, the NW. ditch makes a sudden outward swerve, suggesting the junction of two stretches of work, independently aligned from opposite directions, and failing to meet exactly. From here the Cursus descends the slope into a dry valley, on the far side of which it enters a dense plantation of conifers. Here the banks and ditches have been much worn down by earlier cultivation, but the latter can be traced almost throughout by the greater concentration of rabbit-burrows.

Towards the NE. side of the plantation the NW. bank is interrupted by yet another small long barrow, rising as a bare turf-covered mound out of an almost impenetrable forest of close-set trees¹³. The barrow is 140 feet long, 40 feet wide, and some 7 feet high at the NE. end. The lateral quarry ditches are now barely visible on the surface, but their presence is amply attested by the relative concentration over them of rabbit-burrows and mole-heaps. The Cursus bank is aligned upon, and runs up to, both ends of the barrow, but the axis of the latter is not co-incidental with that of the bank, from which it differs by a clock-wise rotation of some 10 degrees. Here, as on Gussage Down, the inference is that the Cursus was aligned upon an already existing long barrow.

After emerging from the NE. end of the plantation the Cursus is lost to view on the surface, and the remainder of its course, up to the last few hundred feet on Bokerly Down, has been traced entirely by probing, not even air-photographs being of much help in this section. Its line cuts across the modern field-boundaries, and almost the only visible clue to its direction, in this stretch of over a mile, is at a point 430 feet NW. of the school at Pentridge, where a stile, sited in a sudden kink in an otherwise straight hedge, marks the passage beneath it of the NW. ditch.

¹³ The safeguarding of the barrow from the deleterious effects of afforestation is due to the prompt action of Dr J. F. S. Stone.

At a point 1300 feet NE. of the approach-road to Pentridge probing revealed two opposed causeways of unexcavated chalk in the line of the ditches, that on the NW. being 40 feet, and the other only 10 feet wide. There is no trace of these gaps on the surface, and their purpose is obscure. Similar unexplained gaps occur in the sides of the cursuses at Stonehenge and Dorchester-on-Thames. It may be added that so far as is known these are the only such gaps in the Dorset Cursus, though it is always possible that others may have passed undetected in sections where probing has been the only means of establishing the line of the ditches.

From these gaps the Cursus continues, swinging slightly to the S.E., to the foot of Bokerly Down, where the NW. ditch swings sharply inwards, narrowing the width between the ditches from 335 feet to 270 feet. In one field¹⁴ both ditches were plainly marked in the summer of 1948 by darker lines of growth in a late (second) crop of hay. This is the only occasion on which the writer has anywhere observed such indications, identifiable at ground level, in this crop.

Until 1953 the last few hundred feet of the Cursus, where it mounts the slope of Bokerly Down, were difficult to trace in the rough grass, though already known from air-photographs taken ten years previously. In that year, however, renewed cultivation of the down revealed its details in a most striking manner (PLATE IV), showing the end of the Cursus squared off at right-angles with a straight length of transverse bank and ditch.

As on Thickthorn Down, six miles away to the SW., this end of the Cursus appears to be related significantly to a long barrow, and one of more than ordinary length, lying a short way SE. of its E. corner, upon which the barrow is aligned. Its total length is 490 feet. It is divided into two unequal parts by a broad gap, which has in the past led to its identification as two separate long barrows laid end to end¹⁵. But probing suggests that the ditches are continuous, and that in fact there is only one barrow of exceptional length. At its S. end there stands a separate round barrow, also somewhat mutilated.

The association of the Cursus with no less than four long barrows, one of which (in the plantation) certainly, and another (on Gussage Down) probably antedates its construction, can hardly be fortuitous, and suggests not only that this remarkable structure should be referred to a late stage of the Windmill Hill culture, but also that its purpose must have been connected in some way with the cult of the dead, or at least with practices intended to ensure that the benign influence of the dead was transmitted, through the physical propinquity of their resting-places, to the living users of the Cursus. A similar association with a long barrow occurs at the Stonehenge cursus, and with analogous and apparently contemporary structures named 'long mortuary enclosures' in two cursuses in the upper Thames valley (Dorchester-on-Thames and North Stoke)¹⁶.

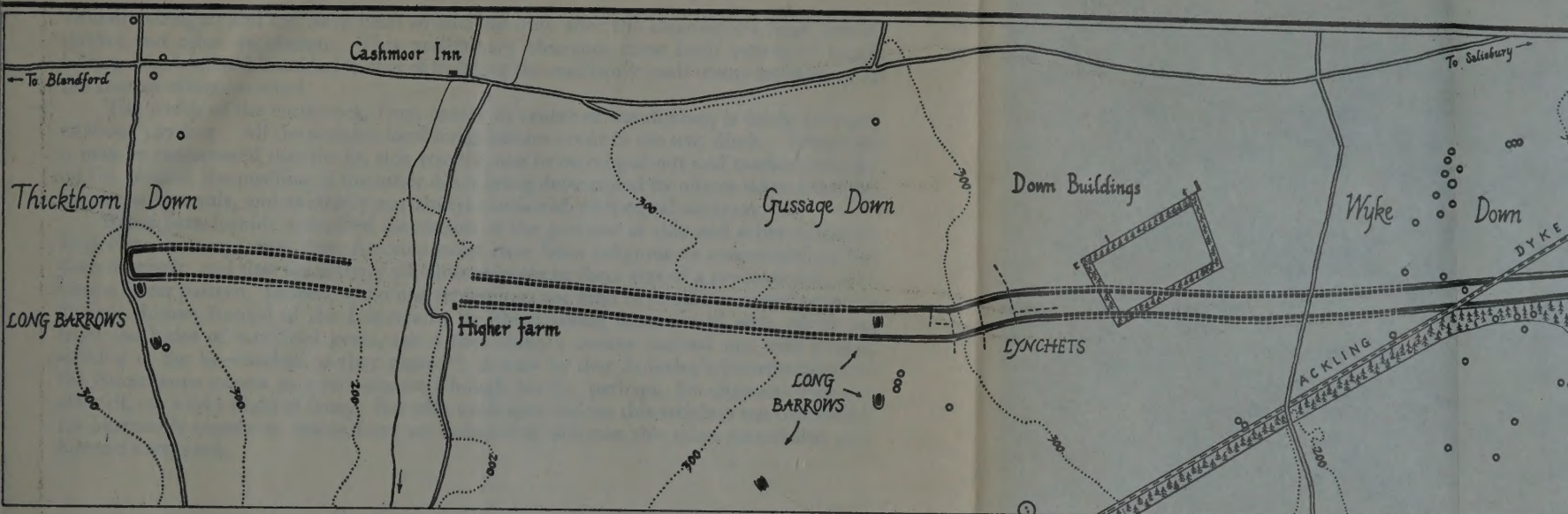
Although nearly a score of cursus monuments, certain and probable, are now known in Britain, no other proved example has been recorded of the addition of one cursus to another, end to end¹⁷. Nor does any other cursus even approach in length either of the constituent portions of the Dorset Cursus, which represents a unique achievement in prehistoric construction. Though its over-all course is sinuous, long stretches are

¹⁴ Immediately NW. of the word 'Long' in 'Long Barrows' in FIG. 1.

¹⁵ Crawford and Keiller, *Wessex from the Air* (1928), 232.

¹⁶ A detailed description and discussion of all known cursuses, long mortuary enclosures and allied structures will appear in the second volume of *Excavations at Dorchester, Oxon.*

¹⁷ A possible though unproven instance has been recorded by Dr J. K. St. Joseph at Maxey, Northamptonshire, but the area of junction, if such there was, has been destroyed by gravel-digging.



THE COURSE OF THE DORSET CURSUS



PROFILE OF THE EAST BANK & DITCH ON BOTTLEBUSH DOWN

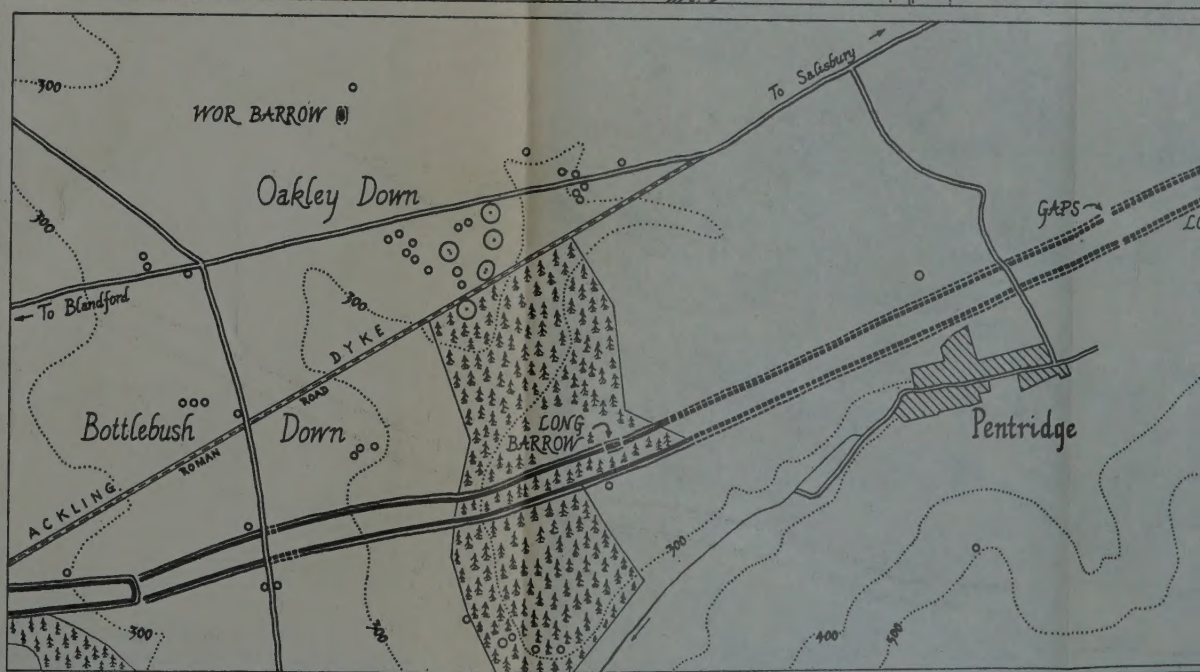
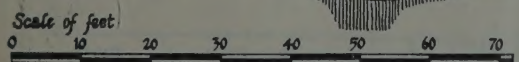


FIG. 1

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virtually straight, and can have been so laid out only after the clearing of a large area of thicket and other vegetation. This preliminary clearance must itself represent much labour, which should be added to that of building the earthwork itself in any assessment of the human effort involved.

The width of the earthwork, from centre to centre of the ditches, is fairly constant at about 300 feet. All the obvious local irregularities occur in the nw. ditch. From this it may be conjectured that the se. side was the one to be ranged out and marked initially on the ground, the position of the other ditch being determined by offsets taken from the former at intervals, and evidently not always measured with equal accuracy.

Space here forbids a detailed discussion of the purpose of this and other cursuses. It is clear, however, that their function must have been religious or ceremonial, rather than domestic, and that the activity which took place in them was of a processional, or at least a linear pattern. Indeed, when one remembers the kind of ritual associated with the ancient Roman festival of the Lupercalia, in which young men, armed with whips cut from the hides of sacrificial goats, ran a race along a course marked out with stones, striking at the by-standers as they passed¹⁸, it may be that Stukeley's interpretation of the Stonehenge cursus as a race-course (though hardly, perhaps, for chariots) was not, after all, too wild a flight of fancy. But with such speculations this article is not concerned. Its purpose is merely to rescue from an undeserved oblivion this most remarkable prehistoric earthwork.

¹⁸ The belief in the efficacy of a blow from one of the participants as a cure for barrenness in women points to an origin in a fertility ritual.

Homer and the Mycenaean Tablets

by T. B. L. WEBSTER

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NOW that more than a year has elapsed since the publication¹ of Dr Michael Ventris' brilliant discovery that the Mycenaean tablets inscribed in Linear B contained Greek, a preliminary answer may be given to the question of their bearing on the interpretation of Homer. My purpose here is to indicate where our 8th century *Iliad* and *Odyssey* agree with the tablets and where they differ.

In a recent paper to the Classical Institute Mr Chadwick, in illustrating the 'dactylic' character of the language of the tablets, noted the beginning of one of them (Py An 12) ἐρέται Πλευρώναδ' ἰόντες and of another (An 14) τοιχοδόμοι δεμέοντες. The metre of An 12 is paroemiac, so named because many proverbs are composed in it; it is therefore presumably very ancient and it would not be surprising to find it in Mycenaean. An 14 is a pendant hemiepes like the individual kola of Achilles' triumph song (*Iliad* 22, 393). While readings are still uncertain it would be rash to assert that operation orders were given metrical headings, but it may be noted that double-short rhythm can also be seen in the headings of several Pylos tablets (Cn 02, Jn 09, and perhaps Cn 22). Another possible echo of poetry is the rare use of an adjectival patronymic: Homer's Νέστωρ Νηληϊός is exactly like An 43, Ro-u-ko Ku-sa-me-ni-jo and Sn 01 Ne-qe-u E-te-wo-ke-re-we-jo. Dr Ventris pointed out the parallel between me-ta-qe pe-i e-qe-ta Ro-u-ko Ku-sa-me-ni-jo (An 43/15) and the formula in *Iliad* 18, 234 μετὰ δέ σφι ποδώκης εἵπεν 'Ἀχιλλεύς. The parallel is still valid if Professor Palmer's interpretation of e-qe-ta here as a noun (= 'Count') rather than a verb ('accompanies') is accepted; the verb in *Iliad* 18, 234, might very well mean 'accompanied as their Count,' since motion is ruled out by the preceding 'his companions stood round lamenting'. Here a Mycenaean military formula has survived in Homer.

Another kind of tablet shows a close parallel in syntax with certain descriptions in Homer. A typical Knossos chariot tablet (KN Sd 0404) reads: 'chariots at Kydonia, scarlet, fitted with wooden pole, leather breastwork, horn guide-rings'². Compare the

¹ This essential article, 'Evidence for Greek dialect in the Mycenaean Archives', by M. Ventris and J. Chadwick, *JHS* 73 (1953), is available in offprint form from the Hellenic Society, 50 Bedford Square, W.C.1. Mr Chadwick gave a general account of the tablets in *ANTIQUITY* 1953, 108 f.; since then Professor A. Furumark has published two long papers (obtainable in offprint form) and Professor G. Björck two discussions of detailed points in *Eranos*, vols. 51 and 52; E. L. Bennett has transcribed the Mycenaean tablets in *Proceedings of the American Philosophical Association*, 1953, 422; Professor C. W. Blegen has described the Tripod tablet (PY Ta 641) in *Ephemeris Archaeologike*, 1953, 59; Professor L. R. Palmer has given his Inaugural Lecture on 'Mycenaean and Indo-Europeans' and a paper in the *Transactions of the Philological Society* on 'Mycenaean Greek Texts from Pylos'. I have also had the advantage of using Dr Ventris' privately circulated *Glossary* (1953) and of attending the Linear B Seminar of the London Classical Institute; some of the results of this have been published in the first *Bulletin* of the Institute, which also gives the latest list of identifications and Dr Ventris' suggested code of practice in transcription.

² Text in *JHS* 73 (1953), 84. The meanings of the nouns translated 'pole', 'breastwork', 'guide-rings' are uncertain, but I believe that they are all in the instrumental case, governed by a-ra-ro-mo-te-me-na, though this can also be used absolutely 'with joinery work'. A generally similar tablet is illustrated in *ANTIQUITY* 1953, 206; compare for its syntax *Iliad* 18, 389-90.

description of Nausikaa's wagon in *Odyssey* 6, 69 'wagon, high, well-wheeled, fitted with a basket' and of Kalypso's axe in *Odyssey* 5, 234 'axe, big, fitted to the hands, bronze, sharpened on both sides, and in it a handle, very fine, olive-wood, fitting well'. The syntax is the same in Homer and the Chariot tablets; it is efficient for its purpose and survives still in Army Forms; but why should Homer, who could describe exquisitely, use this style unless his Mycenaean predecessors composed Army Forms as well as poetry?

The Pylos tripod tablet (Ta 641) and others like it might well be lists of gifts. One (Ta 996)³ corresponds curiously with the gifts given to Menelaos in Egypt. The tablet reads: 'unused (?) lavers 2, waterpots 3, phialai 3, amphorai 2 etc. etc.' Menelaos in *Odyssey* 4, 128 was given 'two silver baths, two tripods, and ten talents of gold'. Homer has many such lists of objects with numbers—the gifts that Odysseus brought back from the Phaeacians, the gifts that Agamemnon proposed to give Achilles, the prizes for each event in the funeral games of Patroklos, or the cattle, sheep, pigs, goats, mares, and foals captured by Nestor in Elis. This last passage which occurs in the eleventh book of the *Iliad* (677 f.), with others in the *Odyssey*, particularly the list of Odysseus' livestock in Ithaka and on the mainland (14, 100 f.), recall the C tablets from Knossos and Pylos with their lists of animals. When Thetis visited Hephaistos, she found him making tripods 'twenty in all' and 'the decorated ears had not yet been fitted'; each was to be ti-ri-po o-wo-we like the eared tripod listed on Ta 641. The poet quotes numbers as though he were used to listing objects with their numbers.

The likenesses so far described are primarily formal, and a possible explanation is that Homer's Mycenaean predecessors work closely or are identical with the scribes of the tablets. We have however also noticed agreements in subject matter and we may now ask more generally where the world of Homer agrees with or differs from the world of the tablets, noting particularly where the tablets explain vestigial traces in Homer. Ventris and Chadwick's list of gods⁴ gave Athena, Enyalios, Paian, Poseidon, Potnia, Eleuthia (=Eileithyia), Zeus, Hera, Hermes, Dionysos, Posidaeia, Diuia, Iphimedeia, the Winds, Demeter. Additions have since been made to this list: Artemis, Areia, Erinys, Trisheros, Daidalos, Teiresias, Themis, Diuieus. We should be rash to assume that the Olympians are already a tidy (though quarrelsome) family as in Homer, since they appear in queer company on the tablets. It is more interesting to note certain changes. Demeter in Pylos (En 02) was still corn-growing earth, just as in Homer Hephaistos is still in at least one passage Fire (*Iliad* 2, 426). On the special occasion when Patroklos' pyre will not burn, Achilles prays to Boreas and Zephyr (*Iliad* 23, 194); in Knossos the Winds had a priestess (Fp 13) and in Pylos (Kn 02) offerings were made to Trisheros, who has been plausibly equated with Tripator, both an ancestor and a wind god⁵. These are deified elements; Enyalios, Ares, Paian were deifications of the battle cry, the melee, and the song of healing; in Homer Ares has become an Olympian in the full sense; Enyalios in one passage (*Iliad* 17, 211) has sunk to be an epithet of Ares; Paian in Homer is sometimes a common noun for a song and sometimes the doctor of the gods; only later does the word become an epithet of Apollo. Zeus and Poseidon appear at Pylos not only as masculines but also in a neuter and a feminine derivative (Kn 02); the neuter presumably stands for the grove or precinct of the god like the 'lovely Posideion' in the *Odyssey* (6, 266). The feminines may perhaps be springs in the precincts. Daidalos and

³ Published *AJA* 1954, pl. 7.

⁴ *ANTIQUITY*, 1953, 198; *JHS*, 73 (1953), 95, 98.

⁵ B. Hemberg, *Eranos*, 52 (1954), 172 f.

Teiresias in Knossos and Iphimedeia in Pylos receive offerings; in Homer they are not gods but mortals belonging to past history. There are traces in Homer of worship accorded to mortals in phrases like 'he was honoured as a god in the land'; such phrases are mostly used of military chiefs, but in *Iliad* 16, 605 'Onetor was priest of Idaian Zeus and was honoured as a god in the land'; it is tempting to compare him to the Diuieus, who is given offerings of gold in a Pylos tablet (Kn 02); Diuieus means presumably 'man of Zeus'. Thus the divine world of Homer shows both change and survival.

I need not repeat the long list of heroic names which Ventriss and Chadwick find in the tablets. The occurrence of Greek and Trojan names (as well as names known in other legends) indiscriminately at Knossos and Pylos is disturbing. The fact that Hektor is a 'slave of god' at Pylos should not mislead us into regarding him as a humble person; we do not yet know what 'slave of god' implies. We have seen that Eteokles occurs in adjectival form as a patronymic and therefore presumably in a noble family, and Antenor and Amphion are both kings in Pylos. For the moment it may be safest to assume that Mycenaean poetry already possessed these names but that poetry was continually remodelled to tell of recent events, so that if the sack of Troy VIIa found its way into poetry, its defenders, as well as its attackers, would be given for the most part, as Nilsson long ago suggested, existing Mycenaean names.

Land in Pylos seems to be of three kinds: (1) reserves (*temenos*) of the Lord (*wanax*) and of the Army Commander, with which we may compare the *temenos* given to Bellerophon in the sixth book of the *Iliad* (194) and many other examples, (2) settlers' portions (the word used is *ktimena*), and (3) common land (usually held with the *demos*). The distinction between these last two may perhaps still be seen in the second book of the *Iliad* (546). 'Athens . . . well settled (*ktimenon*) citadel, *demos* of Erechtheus' and we can hear all three when Paris is said to be (3, 50) 'a great woe to his father (the Lord Priam), the city (the settlers), and the whole *demos*'.

It is not yet clear what was the relationship of the King (*basileus*) to the Lord (*wanax*) in Pylos. The tablets give us the names of twelve kings; in Phaeacia there were twelve kings and Alkinoos was the thirteenth (*Odyssey* 8, 390)—he was in a superior position; he is sometimes called *basileus* but he is also said to be 'Lord of all the Phaeacians, and the *demos* listened to him as to a god' (7, 10); he is 'god-like' and may be called 'the holy might of Alkinoos'. There seems here a clear distinction between *wanax* and *basileus*, but the *wanax* is also *basileus*. In Pylos the *basileus* has his palace and his council of seniors (not necessarily elders) like the Homeric *basileus*, and on two of the tablets which give the allocations of bronze to smiths of different places between the individual allocations and the total a line gives the name of the king: he evidently supervises the allocation just as he supervises the harvest on the shield of Achilles (*Iliad* 18, 556).

In one respect the royal households of Homer show a startling discrepancy with Pylos. Odysseus and Alkinoos each have 50 slave-women in their houses but the number of women, boys, and girls on the tablets (Aa, Ab) adds up to at least 1500. These appear to be slaves; they are often described by ethnics—women of Knidos, Crete, or Kythera: so Agamemnon offers to give Achilles (*Iliad* 9, 128) 'seven women of Lesbos skilled in excellent handiwork'. They are also described in the tablets by their handiwork, spindle-women, carding-women, flour-women, barley-women, bath-pourers; all these can be paralleled among the women slaves in the *Odyssey*. It is curious that on other tablets (Ad) some 200 men and boys are described as 'boys of the flour-women, etc.'; we have perhaps an echo of this relationship too in the *Odyssey*; the old Sicilian woman who looks after Laertes married Dolios, Penelope's dower slave; of her children Melanthios and Melantho work in the house of Odysseus, while Dolios and other sons work in the fields;

perhaps they would be described as ' boys of the Sicilian woman ' : ' Then came the old man Dolios and with him that old man's sons wearily from their fields, when their mother, the old Sicilian woman, went forth and summoned them ' (*Odyssey* 24, 387). The structure of society seems much the same but the scale is very different.

Homer only once betrays knowledge of the use of massed chariots in war ; in the fourth book of the *Iliad* (301 f.) Nestor gives instructions for his chariots to be drawn up in the front line and remarks ' so the men of old used to sack cities and walls '. But the tablets record some 300 chariots at Knossos, and this sounds as if the lords of Knossos used chariots in numbers like contemporary Hittites and Egyptians. In Homer the chariot is normally only used to transport a warrior from one place to another. The Knossos tablets and Homer agree in the use of ivory, bronze, and silver for decorating chariots, but the words for joinery, pole, breastwork, and guide-rings have changed in Homer and different woods are used in making the chariots. Here then Homer has for the most part modernised.

Many of the Knossos chariot tablets (Sc) show corselets in addition to the chariot bodies and sometimes an ingot is substituted for the corselet ; this means presumably that the owner has a lump of bronze, from which he armours his own shirt (like the lump of iron which Achilles gives as a prize in the games (*Iliad* 23, 826)). On a Knossos tablet (J 693) can be read the words ' thin linen, . . ., chiton ' then the bronze sign and a weight, and below ' e-pi-ki-to-ni-ja ', then the bronze sign and a weight (i.e. bronze-plates to be put on linen chitons). The corselets then are armoured shirts like those worn on the Warrior vase from Mycenae, and explain the Homeric formula ' bronze-shirted Achaeans '.

I have said little about details of vocabulary, or about pots, furniture, textiles, animals, trees, or grain, all of which show correspondences or differences between Homer and the tablets. I have confined myself to a few main topics in which the correspondences and differences are particularly clear or interesting. From Schliemann's time we have known that Homer described Mycenaean objects ; the tablets show that he describes them in Mycenaean language and that he also preserves Mycenaean gods, Mycenaean names, traces of land tenure and social structure, and many more details about objects than could have been known from material survivals. But he not only preserves, he also brings up to date : the names of vessels remain unchanged and the Lord of Pylos (Ta 641) had a ' four-eared cup ' like Homer's Nestor (*Iliad* 11, 632), but the names of the parts of the chariot have changed with their tactical use, heroic households have shrunk in size, and the Olympians have been tidied into a family.

The tablets therefore join the archaeological remains in supporting the evidence of language and metre that Homer has a poetic ancestry which stretches back into the Mycenaean age. I noted earlier that the tablets sometimes show signs of metre, that some of their formulae and some of their syntax recur in Homer, and that Homer shows a liking for lists with numbers such as are found on the tablets. Is it possible that the writers of the tablets were Mycenaean singers ? The suggestion that Mycenaean singers may have been able to write seems at first sight to run counter to the view that Homer is the end of a line of oral poets. But, apart from other examples, now that we know that the Song of Ullikummi was in verse we can say confidently that recording in a difficult and imprecise syllabic script does not affect the technique of oral poetry. The introduction of alphabetic writing (whether ' to serve as a notation for Greek verse ' ⁶ or not) soon changed this, and Hesiod already shows the change, the beginning of written as

⁶ H. T. Wade-Gery, *The Poet of the Iliad*, 13.

distinct from oral poetry. But there is no reason to suppose that Linear B would have had any effect on the peculiar characteristics of oral poetry even if it was used for recording poetry.

It has been pointed out by Mr Chadwick and others that the script of Linear B neither degenerated like other scripts used for writing on clay nor changed over a period of some three hundred years although it was used in many different places. It would seem to have been devised and used for writing on some other material than clay and to have been preserved by a succession of scribes. We know nothing of such a caste of scribes and no word for scribe has appeared in the tablets. Besides doctors and carpenters, two kinds of 'public workers' (*demiourgoi*) are mentioned in the *Odyssey* (17, 383; 19, 135) poets and heralds. Poets, as we have seen, have some close connection with the tablets; heralds equally would proclaim their contents when they were operation orders and perhaps collect the information for the records. Herald, unlike scribes and poets, appear on the tablets. I think we should consider the possibility that heralds were the scribes and poets of the Mycenaean age. In Homer the functions of herald and poet are divided (and the scribes are forgotten). When Agamemnon went to Troy, he took Talthybios with him but he left Klytemnestra with a poet 'whom he enjoined much to preserve his wife' and the poet kept Klytemnestra safe until Aigisthos captured him and left him on an island to die (*Odyssey* 3, 267 f.). Here for a moment the poet steps out of this normal role of court minstrel to become the guardian of the queen. Such a man might have been a keeper of the king's records and the framer of his orders.

Whatever may be the true answer, we can say with some confidence that poetry had some influence on the tablets and the tablets had considerable influence on poetry. We have for long postulated a succession of oral poets transmitting Mycenaean poetry to Homer, partly preserving and partly bringing up to date. Professor Blegen's excavations besides producing the tablets have revealed also the brilliance and magnificence of Pylos in the 13th century. From Pylos two routes lead to Homer: according to Mimnermos men went from Pylos to Kolophon and so to Smyrna, and according to Strabo the Pylians who led the Ionian migration went via Athens. Both may well be true. Modern scholarship seems to suggest that these migrations were not more than a century or at most two centuries before our Homer. This means that there must have still been a long period of gestation in mainland Greece after the 13th century. We need desperately, as Professor Wace has recently said, to know more about these Dark Ages. For the present we should be wise to try neither to overestimate the influence of Ionia on Homer nor to underestimate the poetry which his ancestors left behind in that brilliant centre of proto-geometric and geometric civilisation, Athens.

Photography for Archaeologists: a review*

by ALISON FRANTZ

READERS of Sir Mortimer Wheeler's archaeological publications are already aware of the high standard of photography demanded in his excavations. Now Mr M. B. Cookson, who has worked with him for many years, speaks in his own right and reveals in some measure how these standards are achieved.

Mr Cookson's book is addressed primarily to the archaeologist who is about to turn (at least temporarily) photographer. Nevertheless, much of what he has to say may be read with equal profit by the professional photographer who is leaving his well-equipped studio for a season on a remote excavation or by the professional archaeologist who has no photographic intentions.

As Mr Cookson points out, the archaeological photographer is perhaps the least specialised member of his profession. He must be landscape photographer, copyist, studio photographer and, it might be added, acrobat. He must be prepared to improvise, and with his improvisation to achieve professional results. For this reason, the author lays especial stress on the fact that, whatever ways and means are devised, the fundamental purpose of archaeological photography is to make the material intelligible, and this principle must underlie the photographer's every practice.

The book opens with an introductory chapter on the Value and Use of Photography in Archaeology, followed by four useful chapters on equipment and sensitized materials. Chapter 5, on light, deserves especially careful reading. The photographer on an excavation has no control over the light, except to choose the right moment. This includes knowing which kind of subjects should be photographed in bright sun and which respond best to diffused light; if the verdict is for bright sun there is a further choice between direct or oblique light. It is good to see a strong case put for the counter-light from in front of the camera. In a flat monochrome excavation this is often the only way to pick up contours and small details.

Chapters 7-12 are devoted to various aspects of work on the site: how to photograph walls, stratification, skeletal remains, mosaic pavements, together with useful advice about lighting, the use of a scale in all photographs, high or low view points and the desirability of having a portable platform or tower to attain the necessary height. The keynote of these chapters, and indeed of the whole book, is emphasis on the preparation of the subject before photographing it. This point can hardly be over-emphasized, both for the general impression given by the picture and for its intelligibility. Here, unless the excavating staff is remarkably well-trained, the photographer must be prepared to give the finishing touches, sharpening edges, outlining stratification, removing extraneous objects, etc. The chapter on earth sections and stratification is particularly valuable, dealing as it does with a subject far removed from anything treated in the average photographic manual.

Whereas 46 pages are devoted to the problems of photography on the site, the subject of photographing the finds from an excavation is dismissed in a chapter of six pages. It is reasonable that site photography should occupy most of the author's attention, since more information is available on so-called museum photography, but a few more hints would be welcome on what to do with pots without feet or statues without noses. In an excavation where there is any quantity of sculpture, inscriptions, pottery and other small finds, photographs of these will have an important place in the final publication, and

* M. B. Cookson. *Photography for Archaeologists*. Foreword by Sir Mortimer Wheeler, Max Parrish, London, 1954. 15s.

it is a pity that not a single illustration is included to indicate acceptable standards. Complementary to the author's insistence on absolute cleanliness in the preparation of a site for photography is his stern injunction against opaquing or otherwise retouching a negative to correct a faulty background. His account of salvaging a negative on which pots appeared against a background of twin beds will strike a sympathetic chord in anyone who has been presented with a similar problem.

Chapters 14-18 deal with the darkroom, processing of negatives and prints, and the filing, recording and storage of negatives. In the first of these subjects the excavation photographer will have plenty of opportunity to exercise his ingenuity. He will also welcome the clear description of the basic requirements and arrangement of a darkroom in the field given in this book. Here again we regret the lack of one more illustration. The improvised darkrooms in a Breton wash-house and a Normandy wine-cellar are delightful, but a photograph typical of the simple quarters described in Chapter 14 would undoubtedly help anyone who was confronted for the first time with the necessity of setting up a darkroom in a remote spot.

In the chapters on processing of negatives and prints recognition is given to the difference between working in a temporary field darkroom with only the bare essentials and in a fully equipped establishment in permanent headquarters. It is well to emphasize the fact that under even the most primitive conditions the essential work can be carried out, i.e. developing the films and producing a rough print, even if the negatives have to be re-washed when they get back to a more plentiful water supply. The progress of field work often demands that a negative be seen on the same day, or even within the same hour in which it is exposed. But even apart from this necessity, pushing the button is only one part of producing the final picture, and to obtain satisfactory results, processing should always be done by, or under the direct supervision of the photographer.

With regard to developing, it is the reviewer's experience that in field work it is desirable to have two different developers for films: a fine-grain, soft working solution for subjects taken in strong sun light, and a more vigorous developer to use for most finds, for outdoor scenes exposed in diffused light and other low-contrast subjects. Photographers on British sites will have little difficulty with developing temperature in summer, but for the benefit of the many archaeologists who dig in semi-tropical climates and whose peak load usually comes in July and August, a few more words of counsel on how to deal with the problem of temperature control would be appreciated—if only a mention of the advantages and limitations of sodium sulphate. In the paragraph on development, is the omission of any reference to agitation accidental? The beginner who follows literally the description on p. 86 and starts the clock, puts the cover on the tank, and on the completion of developing time takes out the films, is going to be in serious trouble with streaked negatives.

About Mr Cookson's remarks on negative filing and storing, little need be said except to exhort those who have not taken this fundamental matter into account to do so immediately. Each excavation may invent its own system, but some system there must be.

Chapter 19, on colour and motion picture photography is very brief, and simply indicates that these branches have a place in archaeological photography. Colour photography out of doors is generally easier than black and white; the problems of archaeological colour work indoors demand a book in themselves and in any case each photographer must find the answers the hard way.

Mr Cookson has done a great service in putting so much information and sensible advice in such a compact form. To his list of necessary supplies to be packed up before leaving on an expedition should be added one more item: a copy of *Photography for Archaeologists*.

Saxons and Germans: a review

by F. TISCHLER

Duisburg Museum

THIS book¹ is a proof of the persistence of scientific catchwords which continue to be used from sheer ignorance or mental indolence, although they have been exposed by research. For how long, for instance, have philologists and archaeologists been writing about *Westgermanen* and *Ostgermanen*, though people thus named never existed? And how often do abstract terms or conceptions such as 'people', 'tribe', 'linguistic group' become confused with each other or projected back into periods where they do not belong? Maurer's merit is to have clarified these problems of Germanic philology. He tells us the history of the subject as well as the relevant facts, and above all the interaction between linguistics and archaeology. His book is less a description of the interrelations between Nordgermanen and Alemanni than a history of the Germanic groups and tribes at the time of Tacitus.

With the help of literary and archaeological sources he postulates five main archaeological groups (FIG. 1):

- (1) The Coastal or North Sea group (Ingväonen).
- (2) The Elbe-German and Suebian group (Herminonen).
- (3) The Weser-Rhine German group (Istväonen).
- (4) The North German group.
- (5) The East German group.

This grouping, established in the first edition, has since been checked by archaeologists. R. von Uslar² has again examined all the finds, and has given a positive answer to the important question of equating the groups of finds of the first two centuries A.D. with tribal territories. Whether these tribes are also to be equated with language units, as Maurer seems inclined to think, I cannot judge. The history of settlement in the succeeding periods so often shows overlaps as well as continuity in a single region that language and archaeological types can be equated only with the utmost caution.

It seems possible to equate the old Nordic Group with the Germani, but the archaeological evidence does not prove that it consisted of a single people or that all its composite units spoke the same kind of German. In the west of Germany and in Holland, where the name Germani first occurs in literature, a connection with the Northern Group is evident about 200 or 300 B.C., not before. In the sphere of the North Sea Germans there was a phenomenon which has not been sufficiently investigated so far, namely, the adoption of a trade language common to several groups. We know that the Marshland was first settled from the higher sandy ground (Geest) during the last two centuries B.C. The settlers, a mixed crowd drawn from many different tribes, may perhaps in consequence

¹ *Nordgermanen und Alemannen: Studien zur germanischen und frühdeutschen Sprachgeschichte, Stammes- und Volkskunde*. 3rd revised and enlarged edition. By F. Maurer. A. Francke-L. Lehnen, Bern-München, 1952. DM. 17.50. The review has been translated by Dr Maria Bersu and the Editor.

² *Hist. Jahrbuch*, LXXI, 1952, 1.

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have developed some kind of language peculiar to themselves. The special geometric pottery of the Dutch terps suggests contacts with regions as distant as Hessen or the Middle Rhine—another pointer, possibly, to the assimilation, long unsuspected, of very different groups and clans on the North Sea coast.

The people on the North Sea coast traded with Jutland, with the modern Westphalia and with the great plain of the Lower Rhine—that is to say, with the North German group and the Weser-Rhine German group, using Maurer's terminology. That statement plunges us into the midst of arguments about the linguistic history of the Franks



FIG. 1. THE CHIEF TRIBES, after F. Kauffmann (map by F. Maurer)

and Saxons which are discussed in the new edition of Maurer's book. Since archaeology gives a historical background to the various theories, I may be permitted to report here some of the results of recent continental research on this subject.

The name *Saxon* in Ptolemy seems to come from a source which was cognisant of the names of peoples at about the beginning of the Christian era. According to the archaeological evidence these Saxons are to be identified with the northernmost branch of the *gentes Chaucorum*, having settlements on the west coast of Schleswig-Holstein. It was in the country between North Friesland and the mouth of the Weser that the Saxons first succeeded in establishing themselves—possibly with the help of immigrants from South Jutland. On the east two more such large territories were formed. One of them

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is usually and with some probability identified with the territory of the Angles ; it includes parts of the island of Fünen, of South-east Jutland and the region between Flensburg and the river Eider north of Kiel. The other is to be looked for in East Holstein and West Mecklenburg ; it forms the northernmost group in a region that had close trade-relationship with the Elbe-German group. In the 4th century all these groups were amalgamated, and about A.D. 350 they penetrated southwards beyond the Elbe. Thus there were in the 4th century close contacts between North Sea, Elbe and North Germani. Archaeological evidence would justify the use even at this early date of the term 'Anglo-Saxons' for this new unit formed out of many old groups (see the similar historical condition in South Germany, FIG. 2).

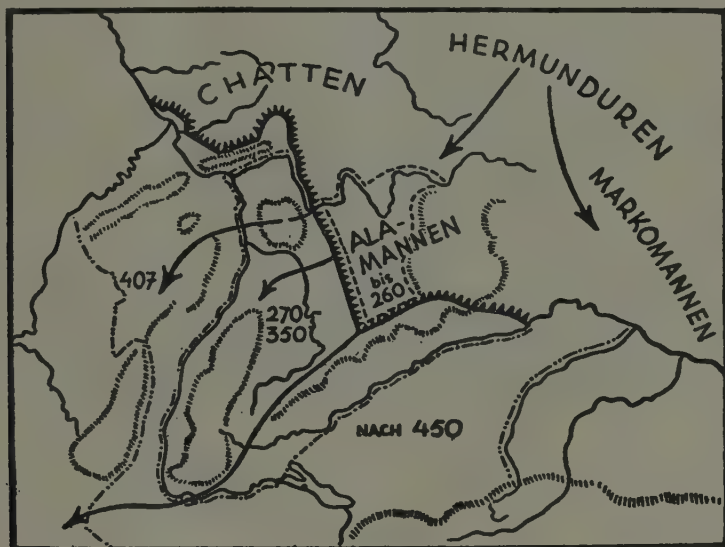


FIG. 2. THE ALAMANNI ON THE ROMAN FRONTIER AT THE TIME OF THE 'ADVENTUS SAXONUM' (Maurer, fig. 13)

The continental thrust of these 'Anglo-Saxons' starting from Hamburg and Stade on the Elbe, was directed towards Bremen and Minden on the Weser where they encountered the Weser-Rhine Germani. The thrust of these latter was chiefly westwards ; it is a portion of this group combined with North Sea Germani, that is to be identified as the nucleus of the Frankish Tribes. The coins prove that there can be no question of Saxons infiltrating into Westphalia before the early 6th century³. The 5th century Buckel urns from Westphalia came from sites that had been occupied from early Roman times. What we have here is probably not a Saxon conquest but a convergence of style. The inclusion of this Westphalian territory in a Saxon political federation or conquest cannot be proved archaeologically before A.D. 700, in spite of occasional earlier Saxon raids into the Issel and Brabant regions.

³ W. J. de Boone, *De Franken van hun eerste optreden tot de Dood van Childerik* : Amsterdam, 1954.

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It is difficult, too, in spite of the abundance of finds, to discern the state of affairs on the sea coast. The tradition of the Varni and Heruli having occupied the Netherlands before the *adventus Saxonum* in England, and the publication of pottery showing connections with Westphalia and even with Perlberg near Stade reveal in a new light the old idea that the emigration of the Angles and Saxons was only from the mouth of the Elbe. I do not know whether it is legitimate, from the pottery and occasional cruciform brooches found in Friesland, to infer a Saxon conquest, if one can account for the same number of Frankish objects in England or the numerous Anglo-Saxon brooches from Krefeld-Gellep by regarding them as trade-objects. Furthermore, the Saxon pottery found in Frankish cemeteries along the Rhine, as well as a few from Northern Belgium, seems to have originated in Kent or in Cambridgeshire rather than in Friesland or Groningen. It is evidence of Rhineland trade, connecting England with the Frankish Kingdom.

We find during the 6th century an assimilation of the different types on both sides of the North Sea. New impulses radiated from Norway and Denmark. We find everywhere a type of unornamented pottery, all examples of which show a close relationship, whether found in Angeln, Emden, London, Abingdon or Lincolnshire. I feel rather sceptical about identifying single examples of this pottery as either Anglian or Saxon; and of inferences therefrom about the continental origin of the Angles and their immigration into England.

What has, on the other hand, become clearer during recent years is the fact that a community of tribes, living in north-western Europe, developed to a larger size only between the 4th and 7th centuries. The beginnings are represented by smaller units like the North Sea and Weser-Rhein Germani. This new community was in touch from the start with the Merovingian Kingdom. Maurer doubts whether at this date there existed any real unity of language. Thanks to his book, which may be read with enjoyment and profit, we know what the problems are, and that is halfway towards solving them.

'Beehive' Villages of North Syria

by PAUL W. COPELAND

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PECULIAR to the red clay plain of northwest Syria are the 'beehive' villages called 'Campo di Melle' by the early Venetian and Genoese traders. The characteristic beehive name and shape is a purely Western concept as the local beehive is a small mud cube. These village houses, built of mud brick, are ideally adapted to their environment; they are warm in winter and cool in summer. The villages cluster about ancient 'tells' or dot the plains from Aleppo south to Homs, occupying a total area of roughly thirty by one hundred and fifty miles (PLATES V and VI). To the north and east this distinctive type of building gives way to the square mud brick house with flat mud roof supported on poles and brush, while to the west the rocky outcrops of the Lebanon range provide an easily worked stone for houses and barns.

There was curiously little interest shown in these beehive villages by the many early travellers, perhaps because they were preoccupied with their interest in Biblical or classical history. Drummond¹ briefly mentions them but his otherwise lively intellectual curiosity is not sufficiently aroused to investigate. The young Frenchman, Thevenot, travelling in 1656 to 1660 says, 'There is a vast number of Domes in Aleppo, and it seems that way of building hath had its original in this City; for most part of the Inhabitants build all their houses Domeways, wherein they succeed extraordinarily well; nay even their Villages are all Domes though they be of earth and a little sharp pointed²'.

Henry Maundrel, chaplain to the Factory of the Levant Company at Aleppo, explored the city's environs and made a journey to Jerusalem in 1697 but was not sufficiently impressed by the villages to comment³. Similarly such other travellers to this area as Carsten Niebuhr, Father Jerome Dandini, and Dr Pococke⁴ fail to comment on the distinctive village architecture although they go into raptures over bits of classical inscriptions. It is curious that such a distinctive feature of the landscape should go unnoted.

The traditional use of the dome is certainly old, going far back into the dawn of civilization. The principle of the corbelled arch was used in the burial vaults of the Sumerians⁵ as early as the 3rd millennium B.C. The transition from the vault to the dome would seem a natural and easy development. E. Baldwin Smith has made an exhaustive study of the *dome* in Middle Eastern architecture and surmises that the mud brick dome may go as far back as the Fourth millennium B.C.⁶ Although preoccupied with the religious aspects and significance of the *dome* in historical times, his book makes fascinating reading for anyone interested in this distinctive aspect of Middle Eastern architecture.

¹ Drummond, Alexander: *Travels*. W. Strahan, London, 1754.

² Thevenot: *Travels of Monsieur de Thevenot*. H. Clark, London, 1686, p. 32.

³ Maundrel, Henry: *A Journey from Aleppo to Jerusalem*. W. Meadows, London, 1749.

⁴ Pinkerton, John: *A General Collection of Voyages and Travels*, Vol. x, Asia. Longman, et al., London, 1811).

⁵ Woolley, Sir C. Leonard: *Ur of the Chaldees*. Charles Scribners' Sons, N.Y., 1930.

⁶ Smith, E. Baldwin: *The Dome*. Princeton Univ. Press, 1950, p. 62.

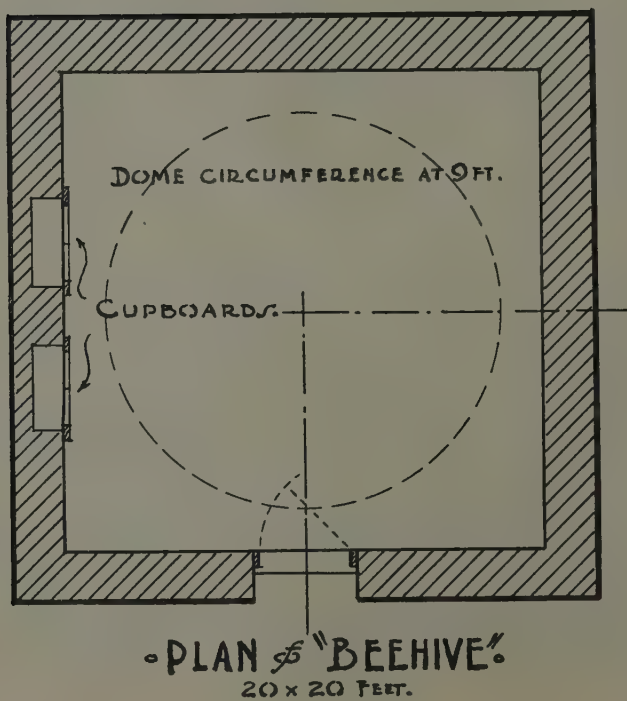
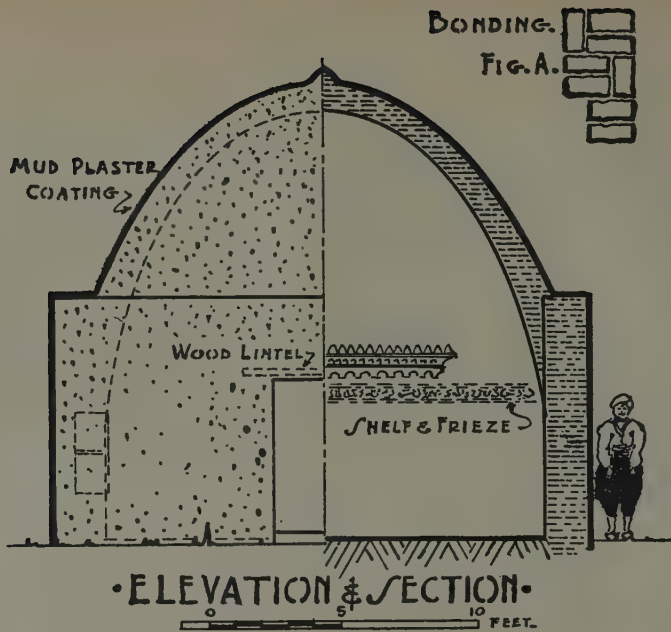


FIG. 1

The glutinous red-brown clays of the North Syrian plains make an ideal building material; the nearest puddle of clay makes a mixing pit. In the late spring after the rains are safely over, when a family decides to build a house (*Qubbeh*) or add another unit for the newly married son and his bride, a space about 20 by 20 feet is roughly levelled and marked out with string. The women bring water from the well and pour it on the clay earth while the men stir with a shovel and add cut straw until they have what is considered a proper mixture. The women carry this 'mortar' to the nearest clear area and tread the mud into simple wooden frames, usually $18 \times 10 \times 3$ inches, approximately the size of the Roman 'lateres' or the so-called Greek Lydium style bricks, but a little thicker. If the frame spreads or warps, it makes no difference, *Ma'leysh*! This operation goes on intermittently until about 4,000 bricks or 2,000 pairs (*jawz*), as they are counted, are stacked for drying (PLATE VII, c). Between harvests, in midsummer, the house is built. Again the nearest mud is puddled into mortar and the women become the hod-carriers while the men, using a simple trowel, lay up the walls in common bond or a basket pattern (FIG. 1). The builder is quite casual about breaking his vertical bonds and equally casual as to the uniform spread of the mortar in his courses (PLATE XII, c). Gaps formed by the increasing thickness of the pendentives are filled in with broken brick. When the dome rises free of the walls, the bricks are laid in simple radial pattern, each course corbelled out from the one below and the interstices are slapped with a fistful of mud.

After the labour of ten days or two weeks, it is the women's job to plaster the *qubbeh* inside and out with about two inches of the mud-straw mortar, applying it all by hand. It would appear that the builder depended on the mud coating for much of his structural strength. This faith is often misplaced as it is a common sight, after the heavy winter rains, to see gaping holes in the weatherside of the domes where the watersoaked bricks have fallen in (PLATE VII, b). During the summer the women are kept busy removing sections of the outer plaster that have cracked, peeled or leaked, and renewing the protective coating. In some of the wealthier villages, they are now using a cement mixture for greater durability (PLATE VII, a).

While there is surprising uniformity in the size and design of these mud brick houses, from village to village, there are a few variations. It seems to be a matter of preference whether the pendentive starts at floor level or three or four feet up. In some more exposed villages the builder reinforces the dome by a system of poles, criss-crossing them at random across the upper shell. These poles and the door and window lintels are usually of *katrani*, a form of Turkish oak that lasts for centuries. In some particularly hot valleys a crude form of air-conditioning is obtained by building in lengths of tree trunk about 4 inches in diameter and longer than the thickness of the dome. These are twisted to keep them free while the dome is drying and can be pulled out in summer for a better circulation of air. In the Hama district the domes are sometimes decorated with rows of projecting stones spaced about two feet apart. One curious custom, evidently surviving from early times, is to bury a 'salt jar' in one of the pendentives. It is no longer used for the storage of salt or for anything else, yet I could find no one who could explain why the custom persists.

The interior décor varies with the wealth and taste of the owner. Many families now build wooden cupboards into the thickness of the lee wall to store small items, and sometimes a window or stove is added. Often a mud-brick arch is built into one wall to provide an entrance to a future additional unit. The square floor of beaten earth or cement measuring approximately 16×16 feet is covered, from wall to wall, with woven rush mats on which are spread rugs and bolsters. At head height there is usually a

broad frieze of gilt cutpaper Koranic texts and cheap prints of holy tombs, bright against the whitewashed walls and dome. Or the women may take bits of bright cloth, cut them in geometrical designs and paste them on the wall as decoration. Frequently the village carpenter will be called in to make a wooden shelf with a crude fretwood rail, the whole supported on a plaster bracket moulded in a simple version of the honey-comb motif; the cusps will be decorated with bright bits of tinfoil from candy wrappers. From the domed ceiling will hang bunches of peppers or dried herbs and a few gay raffia mats, all making an attractive splash of colour against the white walls and ceiling. The wooden door, if painted, will be a bright blue as protection against evil spirits. For the same protective reason, many villagers paint a six-inch stripe of whitewash around the door opening and around the windows, if any.

Unquestionably these 'beehives' are the result of primitive man's adaptation to his environment. They are cheap to build (about 15 £ Sterling by contract), comfortable to live in both winter and summer⁷, and admirably use the material at hand. Beside the beehive dwellings will be clusters of smaller cone-shaped huts (*koukh*) made of mud and straw and used as granaries or for fuel storage (PLATE VII, D). The hot Syrian sun bleaches and blends them all into a red-brown monotone hard to distinguish from the mother earth; even the shadows are absorbed and become indefinite. Only the dome of the village mosque and the Saint's tomb—it is a poor village indeed that doesn't have a tomb of a holy man, although his name and virtues have long been forgotten—are whitewashed on the outside and stand out clearly against the all-prevailing brown landscape.

⁷ Three anthropologists, two men and a woman, from the University of Michigan, U.S.A., lived in beehives last winter in spite of temperatures well below freezing. I am deeply indebted to Mr James Young, member of this group, for introducing me to village life and patiently answering my innumerable questions; and to Mr Ilhan T'Chelebi, landlord, for welcoming me as an honoured guest to his villages.

Books Received

*The inclusion of a book in this list does not preclude its subsequent review**

- REVISTA UNIVERSITARIA : Organo de la Universidad del Cuzco, Peru, Año XLII, No. 104 : primer semestre de 1953. [Contains articles on Peruvian history and mythology, archaeology and anthropology].
- DARTMOOR, by R. HANSFORD WORTH, published by his executors at 2 Lisson Grove, Plymouth, 1953. 25s.
- STUDIES IN PROTO-INDO-MEDITERRANEAN CULTURE, by the REV. H. HERAS, S.J. Vol. 1, 1953. Rs. 175. [Unsubstantiated claims to decipherment of the Mohenjo-daro script, and a lot else].
- THE HISTORY OF ALEXANDER THE GREAT, Vol. 1, by C. A. ROBINSON. Brown University, Providence, Rhode Island, 1953. \$7.00.
- L'EXALTATION DE LA TÊTE dans la Pensée et dans l'Art des Celtes, by P. LAMBRECHTS. De Tempel, Brugge, 1954. 200 fr.
- JAHRBUCH DES RÖMISCH-GERMANISCHEN ZENTRALMUSEUMS, MAINZ. 1 Jahrgang, 1954. [A splendid beginning].
- CLAY FIGURINES OF THE AMERICAN SOUTHWEST, by NOEL MORSS. Peabody Mus. Papers, Vol. XLIX, No. 1, 1954.
- FOUR TOMB-GROUPS FROM JORDAN, by G. LANKESTER HARDING. Palestine Exploration Fund Annual, vi, 1953. Price to the public 16s., including postage. 2 Hinde St., Manchester Square, London, W.1.
- THE UNIVERSITY MUSEUM BULLETIN, published by the University Museum, University of Pennsylvania, Philadelphia. June, 1954.
- WAAGE UND GELD IN DER MEROWINGERZEIT, von JOACHIM WERNER. Sitz. d. Bayerischen Akad. der Wiss., Jahrg. 1954, heft. 1.
- DJEMILA : antique CIVICVL, par LOUIS LESCHI, Directeur des Antiquités de l'Algérie. [No further information given].
- DIE HEUNEBURG BEIM TALHOF : vorläufige Ergebnisse der Grabungen 1950-1953, von WOLFGANG DEHN und EDWARD SANGMEISTER. Marburg. Offprint from *Germania*, xxxii, 1954, heft 1/2, pp. 22-59.
- PIEDRAS NEGRAS ARCHAEOLOGY : Architecture : Part vi, Unclassified Buildings and substructures. Univ. Mus., Univ. of Pennsylvania, 1954.
- DAS ERWACHEN DER MENSCHHEIT, by HERBERT KÜHN. Fischer Bücherei, Frankfurt a M. 1954. [More cave stuff].
- SO WURDE BROT AUS HALM UND GLUT, by W. ADRIAN. Ceres Verlag, Bielefeld, 1951. *Transactions of the Glasgow Arch. Soc.*, N.S. Vol. XIII, 1954.

* We give the date of publication printed on the title-page, but that is often incorrect. One at least of the books dated 1953 was not received till March 1954.

ANTIQUITY

- SAINTE-MARIE AMONG THE HURONS, by W. and E. M. JURY. Oxford U.P., Toronto, 1954. £1 1s.
- DAS WELTBILD DES EISZEITLICHEN MENSCHEN, by MARIE KÖNIG. N-G. Elevert Verlag, Hamburg, 1954. D.M. 9.50.
- NEUE BODENURKUNDEN AUS STARKENBURG, by W. JORNS. Bärenreiter-Verlag, Kassel, 1953. D.M. 9.50.
- FYNSKE JERNALDERGRAVE I: Førromersk jernalder, by ERLING ALBRECHTSEN. Ejnar Munksgaard, Copenhagen, 1954. Kr. 20.
- INVENTORIA ARCHAEOLOGICA: Deutschland, Heft 1, Steinzeit; Grabfunde der Südwestdeutschen Schnurkeramik, by EDWARD SANGMEISTER. Heft 2; Metallzeit (aus Süddeutschland) by H. MÜLLER-KARPE. Habelt, Bonn, D.M. 5 each. [We have already welcomed these useful inventories; see ANTIQUITY xxviii, No. 111 (Sept. 1954), 176. These are two more, to which Dr Bersu contributes a Foreword].
- LEBANON: suggestions for the plan of Tripoli and for the surroundings of the Baalbek Acropolis: report of the Unesco Mission of 1953, by PAUL COLLART, head of the Mission, EMIR MAURICE CHEHAB and ARMANDO DILLON. Unesco, \$1.25, 7s 6d. or 350 francs.
- SYRIA: problems of preservation and presentation of sites and monuments. The same but with slightly different authorship. Unesco, \$1.50, 8s 6d. or 400 francs.

Important New Books and Articles

The inclusion of a book in this list does not preclude its subsequent review

- SCIENCE AND CIVILISATION IN CHINA, by JOSEPH NEEDHAM. Vol. 1: Introductory Orientations. Cambridge Univ. Press. £2 12s 6d.
- THE PREHISTORIC CULTURE-SEQUENCE IN THE MALTESE ARCHIPELAGO, by JOHN D. EVANS. *Proc. Preh. Soc.* N.S., Vol. XIX, June, 1954, 41-94.
- DATING FOSSIL HUMAN REMAINS, by K. P. OAKLEY. Reprinted from *Anthropology Today* (ed. Kroeber), Univ. of Chicago Press, 1953, pp. 43-56.
- THE DATING OF THE AUSTRALOPITHECINAE OF AFRICA, by K. P. OAKLEY. *Amer. J. Phys. Anthropol.* N.S. XII, 9-28.
- BODENSUPREN ALTEN WEINBAUS AM NÖRDLICHEN MITTEL RHEIN, by J. RÖPER, *Rheinische Vierteljahrsblätter*, Jahrg. 18 (heft 3/4), 1953, 170-193. [An interesting addition to the repertoire of the field-archaeologist in vine-growing lands].
- A PROVISIONAL CORRELATION OF PREHISTORIC CULTURES NORTH AND SOUTH OF THE SAHARA, by J. DESMOND CLARK (Rhodes-Livingstone Museum). *The S. African Arch. Bulletin* IX, No. 33, March 1954, 3-17. [Tables, with short accompanying text; a paper of interest to all prehistorians and one of outstanding value].
- MODERN METHODS OF DATING, by SONIA COLE. *Ibid.* 18-24. [A useful summary, up-to-date and technical].
- A HISTORY OF TECHNOLOGY, edited by CHARLES SINGER, E. J. HOLMYARD and A. R. HALL, assisted by E. JAFFÉ, R. H. G. THOMPSON and S. M. DONALDSON. Vol. 1: From Early Times to Fall of Ancient Empires. O.U.P., 1954. £7 7s. [An outstanding work of 828 pages].
- THE DOMESDAY GEOGRAPHY OF MIDLAND ENGLAND, by H. C. DARBY and I. B. TERRETT. Cambridge U.P., 1954. £2 15s.
- THE PREHISTORIC CULTURES OF THE HORN OF AFRICA, by J. DESMOND CLARK. *Ibid.* £5 5s.
- NORDISCHE BRONZEZEIT UND FRÜHES GRIECHENTUM, by ERNST SPROCKHOFF. *Jahrbuch d. R.-G. Zentralmuseums, Mainz*, 1 Jahrg., 1954, 28-110.
- PFERDEGESCHIRR AUS GRÄBERN der älteren Hallstattzeit Bayerns, by GEORG KOSSACK. *Ibid.*, 111-178.
- STUDIEN ZUM SYMBOLGUT DER URNENFELDER- UND HALLSTATTZEIT MITTELEUROPAS, by GEORG KOSSACK. De Gruyter, Berlin, 1954. D.M. 40. [A study of the important but nowadays rather neglected subject of prehistoric religion].

Notes and News

NAVDA TOLI DANCERS

The object of this brief communication is to note the discovery of a certain type of human figures on sherds from Navda Toli with a view to eliciting more information from scholars working on this period rather than drawing inferences as to possible relations between India and Western Asia. Navda Toli is a small hamlet on the Narmada river, opposite the more famous and ancient town of Maheshwar, in Central India. Here excavations¹ during 1952-53 brought to light a rich painted pottery culture, associated with an equally rich microlithic blade industry and some objects of copper, lying below the lowest levels of the debris of the Early Historic period.

The lowermost layers of mounds I and III have yielded some 20 small sherds (FIG. 1). These have conventionalized human figures painted in dull black over a fine, creamy, vitreous white or brownish slip. A study of all the three features—shape of the sherds, the nature of slip or coat over the natural surface, and the form of the human figures—suggests that :

- (i) The vessel when complete was probably over 165 mm. long, 145 mm. broad and had a long sloping neck with concave profile or out-turned flaring edge, a carinated shoulder, and a rounded base.
- (ii) The vessel, particularly the neck portion, was often coated with a thick, white, creamy vitreous slip, internally and externally, the original surface being smooth brown or blackish, but at times coarse. Sometimes the slip was thin and brownish and applied externally only.
- (iii) The figures were painted in dull black on the broad neck portion, either just below and around the neck or halfway at the carination, but above the lower portion; or possibly the entire neck and shoulder portion was painted with figures in three zones.
- (iv) Two slightly different ways of drawing the human figures may be distinguished. In both, the figures are to be inferred as facing the full front, standing in a row with their hands linked with each other angularly, as if they were in the act of dancing in the oriental fashion. But in (a) the trunk of the figures is longer, the legs more widely stretched and the hands joined exactly without crossing each other.

In (b)—there are some six sherds—the hands cross each other and it is possible to infer that the artist had in view a double row of figures standing back to back or behind each other.

In every instance the person (man or woman) has a round face—shown by a solid round black patch about 5 mm. in diameter, having a stick-like straight trunk (9 mm.), rectangular lower portion, with the legs about 6 mm. long, and the arms about 5 mm. long. This row of figures was bounded by two or three parallel horizontally running bands placed both above and below it.

A few sherds, in some cases with stylized, in others with almost naturalistic human figures have been found from some five sites in Western Asia. Since the details about the

¹ For a general account of these, see Sankalia, 'Excavations in the Narmada Valley', *Journal of the Maharaja Sayajirao University of Baroda*, Vol. II (1953), pp. 99-114; and H. D. Sankalia, B. Subba Rao and S. B. Deo, 'Archaeological Sequence in Central India', *South Western Journal of Anthropology*, University of New Mexico, Vol. 9, No. 4, Winter, 1953, pp. 343-56.

**"DANCING" HUMAN FIGURES
ON A WHITE-SLIPPED VESSEL FROM
NĀVDĀ-TOLI**

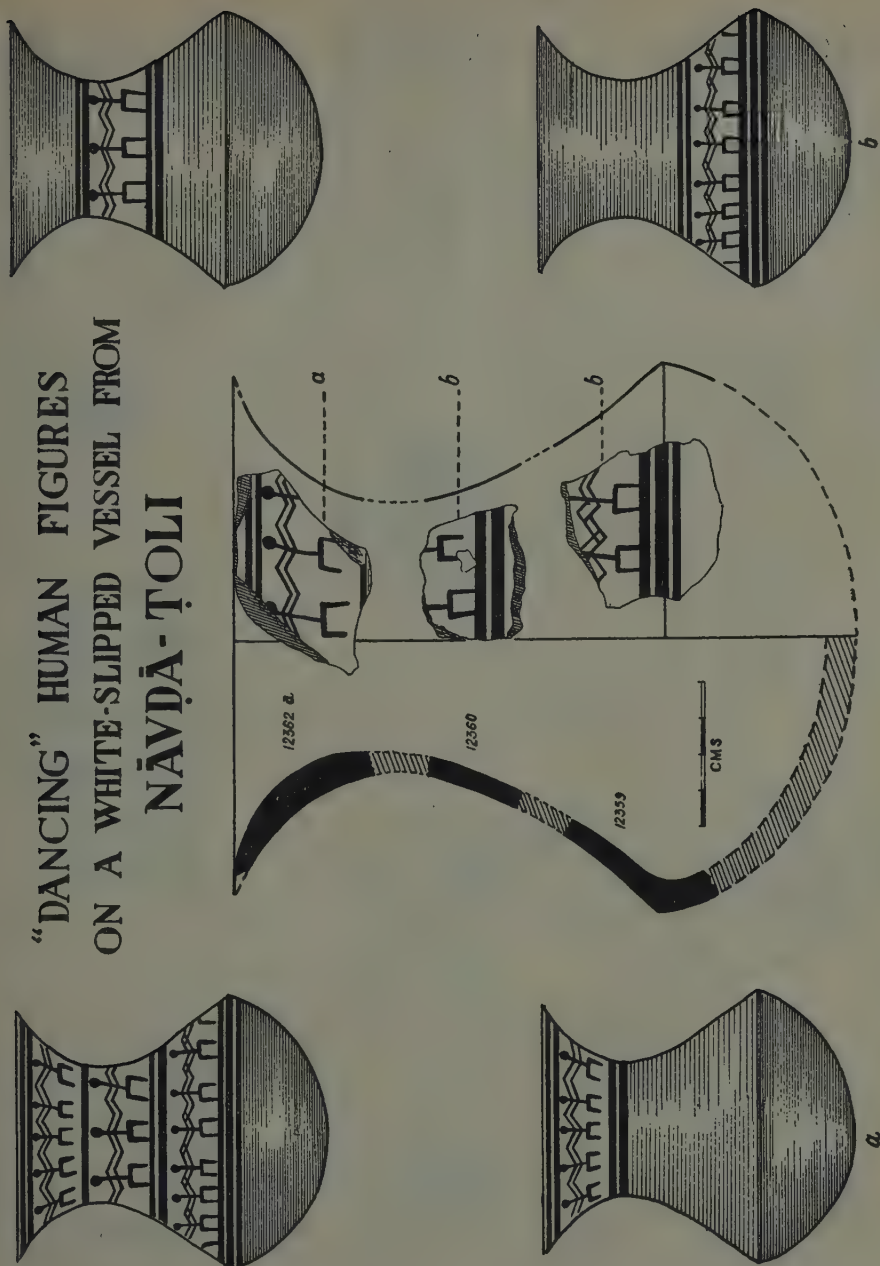


FIG. 1. PAINTED POT FRAGMENTS FROM NAVDA TOLI RECONSTRUCTED

HUMAN FIGURES ON POTTERY FROM INDIA & WESTERN ASIA

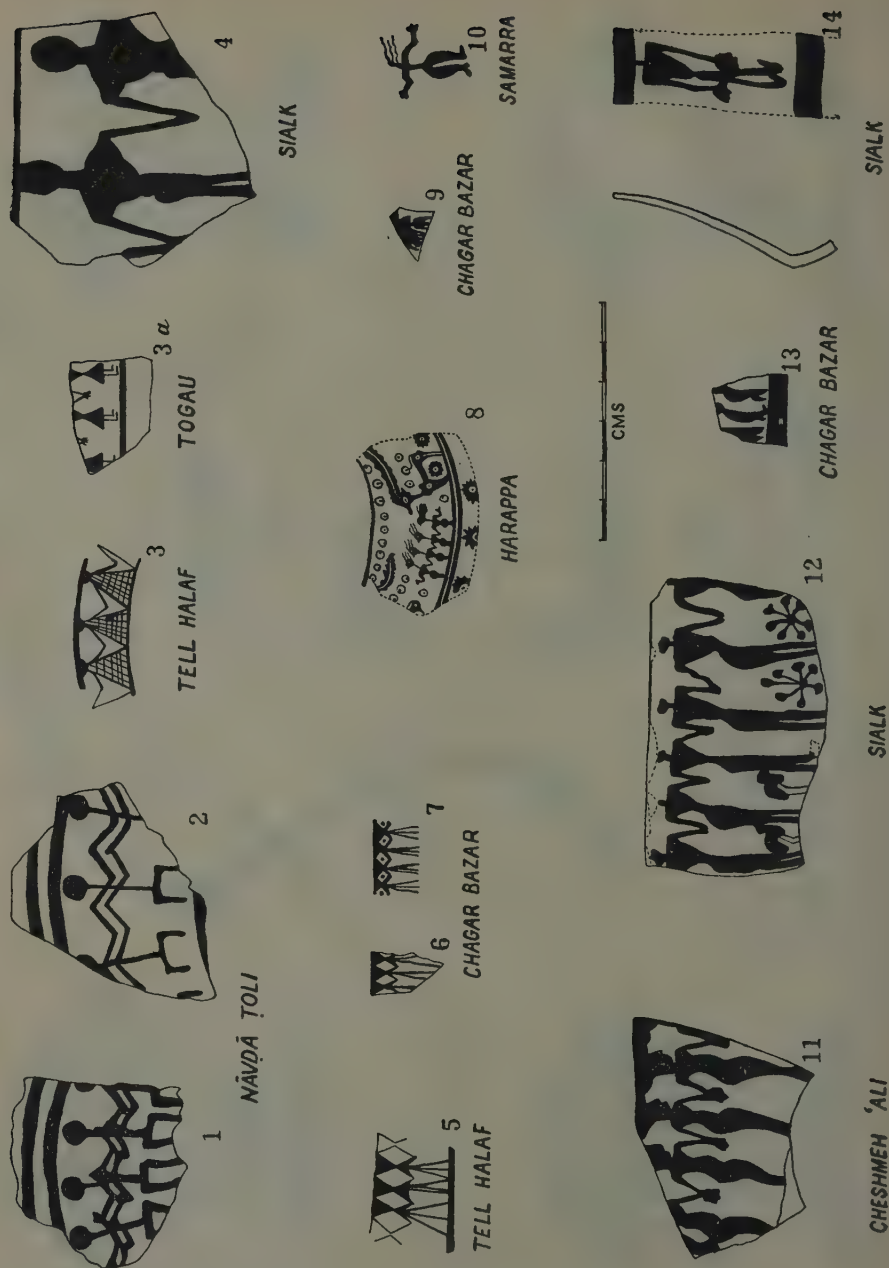


Fig. 2. COMPARISON OF NAVDA TOLI FIGURES WITH THOSE FROM SITES IN WESTERN ASIA

vessels—shape, slip, etc.—on which these are depicted are not as yet available for a comparative study, the present comparison is confined merely to the figures.

The figures that come nearest to those from Navda Toli are the ones found on a sherd from Tell Halaf itself², and on a sherd from Togau³ in the State of Kalat, Baluchistan (FIG. 2). The three Halaf figures seem to be facing the full front and linked together by hands held angularly. Their heads are shown by an ovalish black solid patch, and whereas our figures appear to be shown nude these seem to have worn a triangular skirt reaching down to the ankle.

In the second group of figures, though the idea seems to be the same, the figures are much more stylized. The sherds come from Tell Halaf, Nineveh, Arpachiyah and Samarra. 'These designs have the appearance', says Mallowan⁴, 'of a row of dancing girls with linked hands and are executed in a severely geometric style'. Whether this was so because possibly there were 'restrictions attaching to the representation of the human form in the earliest periods', or not, the fact remains that the representation of human forms in a less conventionalized form at Chagar Bazar⁵, at Tell Halaf itself, at Navda Toli, and even the naturalistic design from Cheshmeh 'Ali⁶, and Sialk III⁷ (where a group of women apparently nude are shown holding each other's hands, but facing sideways), indicate possibly that some other reason lies hidden behind the stylized representation of these figures on protohistoric pottery. If one were to trace the development from the natural to the conventional method of representation of these dancing figures, one may say that the Cheshmeh 'Ali design is the prototype and that on Hissar⁸ and other sites mentioned above an imitation.

Finally it may be pointed out that hitherto no sherds with human figures have been found at Mohenjo-daro, or other sites in Sind. At Harappa these appear on two sherds only of the Harappa culture. On one of cemetery H type⁹ there are however four figures, looking sideways, with hands linked and well marked facial features, slender waists and bulging rounded hips, as in the figures from Cheshmeh 'Ali; in addition they have flying locks, but without the face or head proper, as in the figures from Samarra¹⁰ and Chagar Bazar¹¹.

H. D. SANKALIA.

Deccan College Research Institute

² Starr, Richard, F. S. *Indus Valley Painted Pottery* (Princeton, 1941), p. 32, fig. 22 (Dr Baron Max von Oppenheim, *Tell Halaf*, tr. Gerald Wheeler (New York), colour pl. II, 5). Here Fig. 2. 3.

³ Beatrice de Cardi, 'On the Borders of Pakistan: Recent Exploration', *Art and Letters*, Vol. XXIV, No. 2 (1950), p. 54, Pl. I, 8; here Fig. 2, 3a. I am obliged to Col. D. H. Gordon, for bringing to my notice this site, and for making a number of suggestions.

⁴ *Iraq*, Vol. III, p. 49, Figs. 27, 21-2, 23-4.

⁵ *Ibid*, fig. 27, 21-2, 23-4. Here Fig. 2, 6, 7, 9, 13.

⁶ Starr, op. cit., p. 31, fig. 21 (*Mémoires de la Délégation en Perse*, Vol. XX, fig. 24, 1). Here Fig. 2, 11.

⁷ R. Ghirshman, *Fouilles de Sialk*, Vol. I, pl. LXXV (Paris, 1938) and here Fig. 2, 4 and 12. The type of vessel at Sialk (here Fig. 2, 14) seems to be identical with that reconstructed from Navda Toli, in having a small lower portion.

⁸ Starr, op. cit., p. 32, fig. 20.

⁹ Vats, Madho Sarup, *Excavations at Harappa* (Delhi, 1940), Vol. II, pl. LXIX, 18. Here Fig. 2, 8.

¹⁰ Starr, op. cit., p. 34, fig. 25 (Ernest Herzfeld, *Die Vorgeschichtlichen Töpferien von Samarra, Die Ausgrabungen von Samarra*). Here Fig. 2, 10.

¹¹ Mallowan, M. E. L., *The Excavations at Tall Chagar Bazar, Iraq*, Vol. III, fig. 27, 21. Here Fig. 2, 9.

CHIOS EXCAVATIONS, 1954

The British School at Athens has now completed a third season of work at Emporio in south Chios. The excavations, begun at the instigation of the Chios Society of Great Britain, have been made possible by the generosity of anonymous donors and of the Panchiaki Koraes Society in America, with grants from the Universities of Oxford and Cambridge. Chios was an Ionian island, and one of the leading commercial and artistic centres of the Greek world in the Archaic period (7th-6th cent. B.C.). Having been under Turkish rule till 1912, the island is almost a virgin field for archaeological research.

The site, or rather sites, at Emporio span some 4000 years of Chian history from the 3rd millennium B.C. to the early Middle Ages, *c.* A.D. 1000. The little harbour, with the coast of Turkey and the island of Samos visible in the distance, offers admirable facilities for anchoring and beaching the wooden sailing ships of early times; and there is easy access from here to the fertile hinterland, with the gum-bearing mastic bushes for which Chios was famous in antiquity, and the vineyards which produced the celebrated Chian wine.

Trials in 1952 revealed an extensive Early Bronze Age settlement here. In the following year the scope of the excavations expanded with the discovery of an Archaic Greek city on the slopes of Mount Prophetes Elias above Emporio to the north. The city, lying where it had fallen with the plans of its houses, acropolis and temple, visible on the ground without excavation, vividly reflects the lack of exploration in the island. Last year work was continued on a still larger scale, and on several different sites, including an Early Christian Basilica and a Late Roman fortress destroyed by the Arabs in the 7th century A.D.

The earliest settlement at Emporio, dating back to the beginning of the Bronze Age in the 3rd millennium B.C. or earlier, was apparently round a spring in the lee of a rocky hill jutting into the sea by the harbour. Later the spring was replaced by a well: meanwhile the settlement had climbed the hill above and was now defended by a rough stone wall, which came down from the hill to form a nose round the well. Excavation trenches in the area of the well have reached the present water level at a depth of over 5 metres. The earliest deposits continue below the water, since the sea is now considerably higher than it was in early times. Four main periods, with distinctive phases of pottery, can be distinguished in the history of settlement. The pottery resembles that from the early cities at Troy; the vases are hand made with black or brown surfaces, finely burnished and often richly decorated with incised designs which may be filled with white paste to give an effect. At one point the Early Bronze Age settlement was destroyed in a great fire, and from the floors of the ruined houses many vases have been recovered.

The settlement continued after the fire and into the Middle and Late phases of the Bronze Age, when wheel-made painted pottery of Mycenaean type replaced the old hand-made burnished wares. A notable find this year was a stone mould for making butterfly ornaments, like some golden butterflies found by Schliemann in the Shaft Graves at Mycenae.

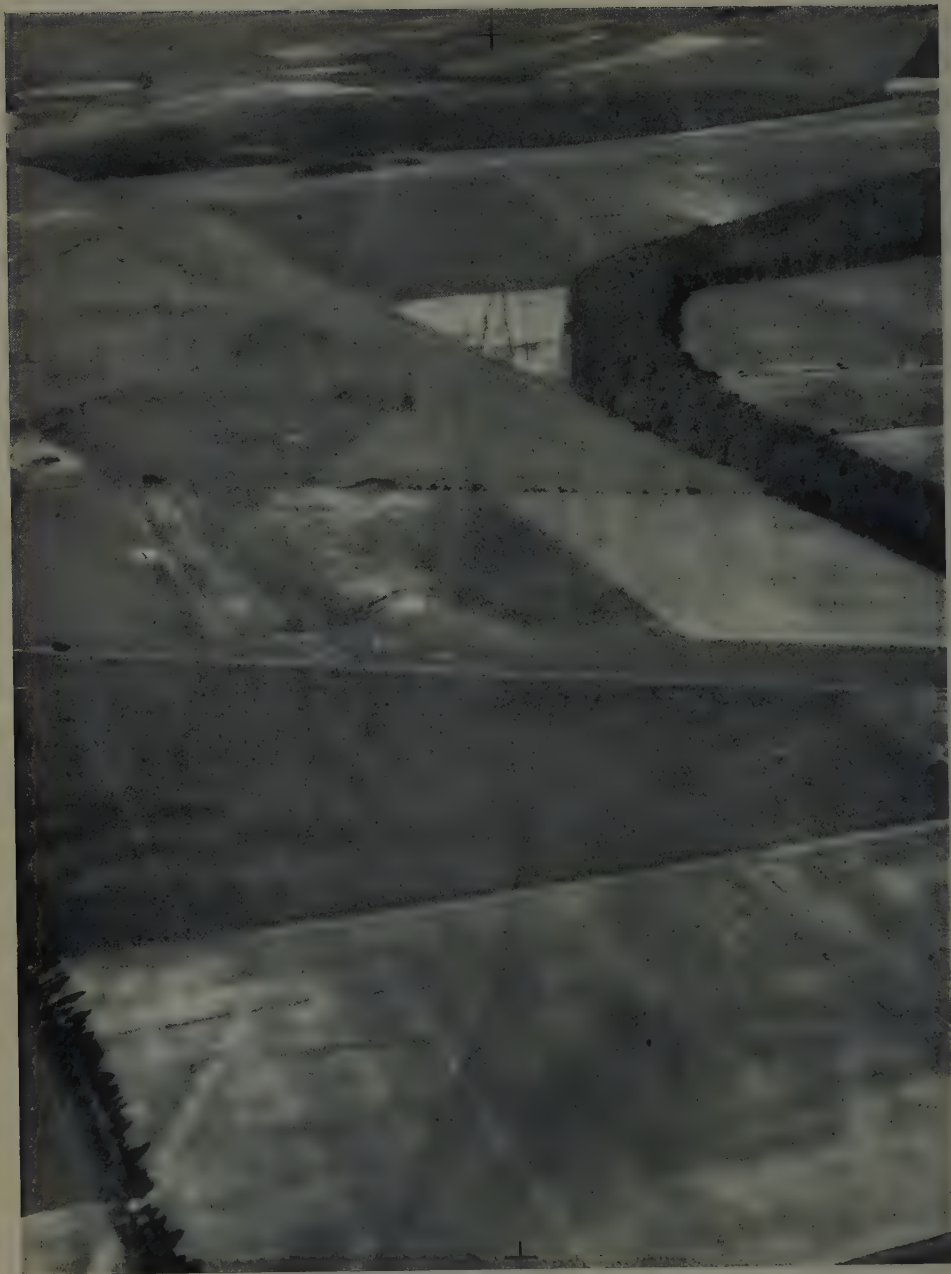
At the end of the Bronze Age, sometime before 1000 B.C., the settlement was abandoned, and there is a break in the history of Emporio. The early Greek city of the Archaic period, occupied from about 700 B.C., nestles high on the slopes of Mount Prophetes Elias above the harbour to the north. The houses of the city are scattered down the steep rocky slopes below a walled Acropolis on the summit, which encloses an area of about 5 acres. The Acropolis is empty of buildings except for the Temple, dedicated as an inscription found this year showed to the goddess Athena, and a large 'Megaron' or hall with columned porch in front, which was evidently the Palace of the local 'King'.

PLATE I



THE SW. END OF THE DORSET CURSUS ON THICKTHORN DOWN, WITH GUSSAGE DOWN
IN THE DISTANCE

PLATE II



THE DORSET CURVIS CROSSING THE DRY VALLEY BETWEEN GUSSAGE DOWN AND BOTTLEBUSH DOWN
SEEN IN THE DISTANCE

PLATE III



THE JUNCTION OF THE EARLIER AND LATER CURSUSES ON BOTTLEBUSH DOWN, WITH THE
ROMAN ROAD (ACKLING DYKE) IN THE FOREGROUND, LEFT

PLATE IV



THE NE. END OF THE DORSET CURSUS ON BOKERLY DOWN, WITH BOKERLY DYKE IN THE BACKGROUND.

PLATE V



a. TYPICAL 'BEEHIVE' VILLAGE OF NORTH SYRIA



b. SOCIAL LIFE CENTRES AROUND THE WELL; A STRAW-CUTTING SLED AT THE RIGHT



a. VILLAGE NESTLED AGAINST AN ANCIENT 'TELL'



b. TAFTANAZ, PROBABLY THE LARGEST 'BEE-HIVE' VILLAGE (16,000 INHABITANTS)

PLATE VII



a. A Q'UBBEH READY FOR A REPAIR COAT OF PROTECTIVE MORTAR



b. A NEGLECTED Q'UBBEH'S DOME HAS COLLAPSED ON THE WEATHER SIDE



c. LAYING UP A MUD-BRICK WALL FOR A SCHOOL AT DJINI



d. STORAGE HUTS, KOUKH; A NECESSARY ADJUNCT TO EVERY VILLAGE

NOTES AND NEWS

In late Archaic times at least (6th cent. B.C.) there was a second more magnificent temple down by the harbour on the edge of the deserted site of the Bronze Age settlement. An inscribed statue base and a votive deposit, together with architectural mouldings found last year, must have belonged to it. This temple may well have been destroyed, and the Archaic city on the mountain abandoned, when the Persians ravaged Chios after the unsuccessful revolt of the Ionian Greek cities c. 500 B.C. Herodotus says that the Persians 'netted' the island, walking hand in hand down the length of it and massacring as they went.

The foundations of a Classical Temple of the 5th century B.C. which replaced the Archaic Temple by the harbour came to light towards the close of last year's excavations. This new Temple had fine Ionic marble capitals and mouldings, and fragments of life size marble statues must come from it. Both the new Temple, and also it seems the Archaic Temple, had an apse at the west end. Meanwhile the Athena Temple on the mountain was repaired and continued in use: but the city was deserted, and the main centre of occupation had evidently shifted to another site explored last year at Pindakas over a mile from the sea.

But in later Greek and into Roman times the main settlement at Emporio seems to have been once again as in the Bronze Age near the harbour. About the middle of the 6th century A.D., in the reign of Justinian, a large Basilica Church with attached Baptistry, courts and out-buildings, was built close by the old Harbour Temples with stones taken from them. Later, in the 7th century, a fortress with a double line of walls and towers was constructed on the rocky hill above. This is the time of the great Arab sea invasions culminating in the five year siege of Constantinople (A.D. 674-8), and Chios lay in the direct path of the Arab invaders. The fortress was destroyed by fire about A.D. 665, and the coins, vases and small objects from its destruction level present a vivid, and for Greece unique, record of this obscure period. An impoverished re-occupation illustrates the permanent ruin which the invasions caused.

In addition to the main work at Emporio, trials last year at Delphinion in N. Chios confirmed the site, first identified in 1952 from air photographs, of the naval base which the Athenians established in 412 B.C. after the revolt of Chios during the Peloponnesian war. At the same time a diving expedition using aqualung equipment provided by the generosity of the *Sunday Times*, began to explore the south and east coasts of the island, which bordering one of the main sea lanes of the Mediterranean, between Chios and the coast of Turkey, promises a rich harvest of wrecks. One wreck in shallow water at Komi close to Emporio, with a cargo of wine amphorae of the 5th-early 4th centuries B.C., may be the earliest shipwreck yet noted.

This year, if funds are forthcoming, it is proposed to explore the two Harbour Temples at Emporio with their prospect of statues, inscriptions and votive offerings of the Great Age of Chios in the Archaic and Classical periods.

M. S. F. HOOD and J. BOARDMAN.

EXCAVATIONS AT GLASTONBURY, 1954

Excavations at Glastonbury were carried out for five weeks from 26 July to 28 August 1954, continuing work started in 1951 and 1952 (ANTIQUITY, xxv, 213 and xxvii, 41).

In the west walk of the 13th century cloister an area, in which post holes had been located in 1952, was cleared down to the surface of the clay subsoil. At the lowest level a series of postholes belonging to a wooden building was located. The building measured 13 feet wide and over 17 feet long. It ran east and west and the west end had been

destroyed by later foundations. The remains indicated a building of some importance, probably of wattle and daub on a frame of wooden uprights. No floor was found. Fragments of pottery trodden into the surface of the clay included a fragment of native ware of the 1st century A.D., a scrap of 2nd century Samian and a number of pieces of the 5th or 6th century. These probably date the structure. Its purpose could not be determined. After the disuse of the building pits were dug through the floor, probably in order to obtain clay. The filling of these pits contained animal bones and pottery of late Saxon date. In the top of one lay a coin of Edward the Confessor. The greater part of the area was sealed by the floor of the cloister erected by Abbot Henry of Blois in the middle of the 12th century.

The discovery of a wooden building is important not only as a confirmation of the traditional account of the wattle church but as an indication of the early development of the site. Romano-British pottery has been found at the west end of the nave and in the reredorter, in the clay used by the 13th century builders to level up these sites. There is now no reason to doubt that this came from the adjacent foundation trenches, which cut through early buildings of the type explored. Further excavation should therefore enable us to carry the history of the site back through the Romano-British period.

The east end of the Chapel of St. Michael was uncovered beside the south wall of the ancient cemetery, west of the 13th century cloister. The Chapel was rebuilt in the late 14th century, but remains of the 13th century were found within the late walls. The earlier building included a vault in which the monks had interred the bones from graves disturbed by the building operations. This vault had been found by early treasure seekers, who disturbed the bones and piled them on the floor of the chapel. The Chapel lay outside the cemetery, abutting on the south wall. Within this wall was a large group of long cists running east and west. The depth showed that the burials had been made when the ground level of the cemetery lay some 4 feet above the natural surface. This confirms William of Malmesbury's account of St. Dunstan's work in raising the level of the cemetery so that it might become a fair meadow in which the bodies of the saints could rest in peace. These graves must belong to the late 10th or 11th century and this is probably the date of the first chapel of St. Michael. Older burials at a lower level were found beneath and beyond the south wall of the cemetery, which also dates from the time of St. Dunstan.

Trial trenches cut to the north of the church and southeast of the Edgar Chapel produced no early remains.

C. A. RALEGH RADFORD.

NECKED AXES FROM NORTHERN DARFUR

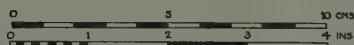
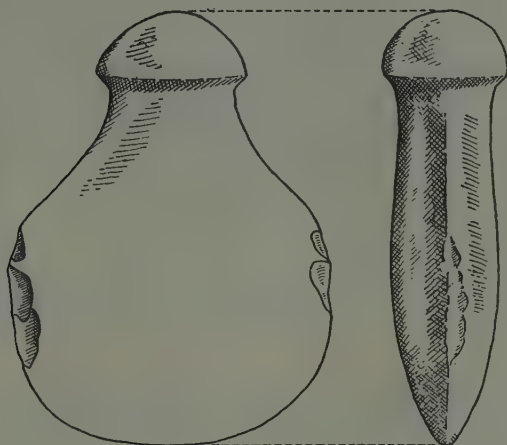
The Wadi Howar, which forms for part of its length the boundary between Ennedi (in French Equatorial Africa) and Darfur (in the Anglo-Egyptian Sudan), rises in Ouaddai, flows for a day or two—in a year of good rains—for some 200 miles north-east along its broad and ancient course towards the Nile Valley, and fades out north-west of the Meidob Hills. At one period, evidently in palaeolithic times, it may well have reached the Nile in the Dongola region. To-day its bed is still clearly defined by a wide path of scrub for another 200 miles, but over the final 200 the desert has swallowed it.

It now forms a rough dividing line between the grassy steppes of northern Darfur and the southern Libyan desert. In good years the expanse of desert on its north produces a crop of low-growing succulent herbs which the camels of Kordofan and Darfur, streaming north in their thousands, spoon up deliriously like a vacuum-cleaner, returning four months later. But it is uninhabited and virtually waterless.

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In this area Newbold in 1923 first discovered relics of a neolithic culture consisting of rock-drawings, lavishly incised pottery, querns, grinders, and a peculiar necked axe-head of polished greenish diorite and other stones, none of them local. He published reports in *Sudan Notes and Records* (Vol. VII, 1924) and in *ANTIQUITY* (Vol. II, 1928). The latter includes drawings of some of these necked axes and the statement that he had traced a similar axe from Huntingdonshire in the British Museum and two in the Norwich Museum from America.

Two later expeditions to the southern Libyan desert found these axes up to 150 miles north of the Wadi Howar. Arkell in the 30's found two examples further south in the Wana and Daju Hills of central and southern Darfur. (*Sudan Notes and Records*,



POLISHED DIORITE AXE — NORTHERN DARFUR

Vol. XXXIII, p. 245). The writer came upon the fine specimen shown in the accompanying figure 150 miles south of the Wadi near Jebel Otash, being used as a paperweight in a bush dispensary. (It had been found close beside it). None of these southerly examples was found in association with the rest of the Wadi Howar neolithic complex. Arkell (loc. cit.) quotes one or two similar *hâches-à-gorge* from the Sahara in the Musée de l'Homme and another from the Cross River (West Africa) in the British Museum.

The Wadi Howar pottery bears a striking resemblance to neolithic incised pottery on the middle Nile but the necked axe is unknown there. The pottery has no connection at all with the drab stuff beaten out on matting in Darfur since the beginning of history.

Can anyone quote examples of this necked axe from elsewhere in Africa, or outside it? If its distribution could be mapped, the origins of these Wadi Howar people and the area they moved to when (as one supposes) the shrinkage in their water supplies drove them elsewhere, might be demonstrated.

H. G. BALFOUR-PAUL.

THE MARRIAGE OF TREES IN SOUTH INDIA

Tree lovers may be interested to know that in South India, sacred trees are sometimes planted together in the same bed, *married*, as the saying goes, and worshipped by Brahmans and other high castes. To *marry* the trees is explained as sacred because marriage of any kind is holy. The ceremony is performed by a Brahman priest of the local temple, which in this case, is usually a shrine dedicated to Siva whose sacred symbol as the Creator, is the *linga* (phallus). There are several sacred trees in India which are still worshipped by followers of the ancient Tree and Serpent cult, but the Pipal tree (*Ficus Religiosa*) and the Margosa tree (*Melia Azadirachta*) are the most important. The pipal tree is also known as the Bhodi tree, as it was under the shade of one of these sacred trees at Bodh Gaya in Bihar where the Buddha received his enlightenment, but the pipal tree was regarded as sacred long before the days of the Buddha. The margosa, also known as the Neem tree, is sacred to Mariamma, the goddess of cholera, plague and smallpox, and is worshipped throughout the South of India as being the abode of her spirit or as indicating her presence. The leaves of the margosa are universally regarded as containing the *divine essence*, and are used all over South India in religious ceremonial.

Allied with this worship of sacred trees, there occur two other religious ideas about which it is difficult to come to correct or satisfactory conclusions; for phallic and tree worship are somehow inextricably mixed up with serpent worship. It is possible that the tree was at first simply an emblem of the phallus, and the serpent was, and still continues to be, an emblem of the sexual passion.

From the earliest times, Indian popular belief has always recognized a much venerated class of serpent demigods known as Nagas, and which are frequently mentioned in the old Buddhist legends and their deep reverence for the Buddha is specially characteristic of them. But at the present day, the mythical Naga is represented by the living hooded cobra. It is called the good snake and is considered a protector, and harbinger of success, but becoming dangerous when angry. Although the poison of this snake is so deadly, few Hindus can be induced to kill one, as most of them believe that the person who does so will be stricken with all kinds of misfortune.

In South India, carved stone images of the naga are set up and worshipped to this day, and ceremonial offerings are made to the living cobra. Groups of these stone images of the naga, some ancient and others modern, may be seen in most of the towns and villages, heaped up in the corner of the court of the local Siva temple, or placed under the shade of a venerable pipal, or a margosa tree (PLATE IX, A and B). These stone images of the hooded serpent are known as *naga-kals* (snake-stones) and represent votive offerings made by women to the naga deity who has blessed them with offspring.

The usual form of serpent worship is the vow taken by childless wives to install a *naga-kal* if they are blessed with children. The ceremony consists in having a figure of a cobra carved on a small stone slab and performing certain ceremonies over it, and then setting it up under a sacred pipal, or a margosa tree, or for preference, under the shade of a pipal tree that has been *married* to a margosa tree (PLATE VIII, B). This particular ancient pipal tree stands in the enclosure of an old Siva temple near Madura city in the Tanjore District of Madras State. It will be noticed that it has grown completely round the margosa tree eventually killing it. At the base of the tree is a stone image of Ganesha, the elephant-headed son of Siva, but originally, an aboriginal deity. Grouped round this image are a few old snake-stones painted with white Saivite marks by recent worshippers to the shrine, probably by the poor women who presented the toy wooden cradles hanging from the dead margosa. The snake-stones here are of an early type and similar to those



b. ANCIENT PIPAL AND MARGOSA TREES IN THE ENCLOSURE OF AN OLD
SIVA TEMPLE NEAR MADURA, MADRAS STATE



a. NEWLY PLANTED PIPAL AND MARGOSA TREES, SIVA TEMPLE
AT SANTARAVORU, MADRAS STATE



a. SNAKE-STONES IN THE COURTYARD OF THE SIVA TEMPLE AT CHIPPAGIRI, BELLARY DISTRICT, MADRAS STATE



b. A GROUP OF SNAKE-STONES AT THE FOOT OF A MARGOSA TREE IN THE COURTYARD OF A HINDU TEMPLE, PATTESVARAM, TANJORE DISTRICT, MADRAS STATE

at the foot of the ancient margosa tree shown in PLATE IX, B. In this kind of *naga-kal*, two cobras are portrayed in sexual union.

When planting pipal and margosa trees together in the same bed or pit, the young trees are tied together with cords so that they may grow up intertwined which they invariably do, owing to the rapid growth and vigour of the pipal tree (PLATE VIII, A). In this illustration, the larger tree is the pipal tree and has a silvery-grey trunk. The young Brahman standing behind the two trees told me that the trees had been *married* for three years, and that later on when the trees were larger, an earthen altar-like platform would be constructed round their base as a receptacle for votive offerings.

Nowhere in India, is this extraordinary veneration for the cobra carried to such lengths as in Malabar on the West coast, as the following account taken from the *Malabar District Gazetteer*, Vol. 1, clearly shows :—‘ In Malabar, cobras are supposed to exercise an evil influence on human beings if their shrines are not respected. A clump of wild jungle trees luxuriantly festooned with graceful creepers is usually to be found in the south-west corner of the gardens of all respectable Malayali Hindus. The spot is free to nature to deal with as she likes. Every tree and bush, every branch and twig is sacred. This is the *naga-kotta* (snake-shrine). Usually there is a granite stone carved after the fashion of a cobra’s hood set up and consecrated in this waste spot. Leprosy, itch, barrenness in women, deaths of children, the frequent appearances of snakes in the garden, and other diseases and calamities supposed to be brought about by poison, are all set down to the anger of the cobras. If there is a naga shrine in the garden, sacrifices and ceremonies are resorted to. If there is none, then the place is diligently dug up, and search made for a snake-stone, and if one is found it is concluded that the calamities have occurred because of there having previously been a snake-shrine at the spot, and because the shrine has been neglected. A shrine is then at once formed, and costly sacrifices and ceremonies serve to allay the naga’s anger. In this district, the naga is the tutelary deity of the house, and god and shrine are conveyed with the property and frequently specified in deeds of transfer. Worship is offered at least once a year, often by a Brahman ; and the serpents are periodically propitiated by songs and dances. The performance of a song called *Nagapattu* (song in honour of serpents) in private houses is supposed to be effective in procuring offspring’.

A. H. LONGHURST.

EXPLORATIONS IN DHOFAR, OMAN

The history and geography of the Dhofar Coast of Arabia have been obscure up to the present time. With the exception of a few references by biblical, classical, and Arab authors, several descriptive accounts by modern travellers, and the knowledge that this area was the source of supply for frankincense, little was known about the entire region. As yet, none of the place-names mentioned by Strabo, *The Periplus of the Erythraean Sea*, or Ptolemy has been definitely identified. In order to shed some light on the past of this remote region, an archaeological expedition was organized in 1952 by Wendell Phillips, president of the American Foundation for the Study of Man, who had secured permission to investigate this area from Said bin Taimur, the Sultan of Muscat and Oman. The primary objective of the expedition was the exploration of about 150 miles of the coastal area of western Oman in the province of Dhofar.

This region is sparsely settled today and our preliminary explorations indicate that it was never densely populated in antiquity. Its economy has always been based largely on the export of frankincense, which grows wild in the mountains behind the coast. While frankincense has been no great source of wealth in modern times, it brought a higher level of prosperity to the region before the advent of Christianity and the coming of Islam

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when it was widely used in religious practice. Throughout our excavations, lumps and masses of it were found, clearly indicating its former abundance.

The harbours of Dhofar must have served both as ports of call and as shelters for ships sailing to the east and the west. Proof of ancient trade with the east has been established by the discovery of a bronze statuette which was imported from India and dates about the 2nd century A.D.¹ As in more recent times, pirate vessels also may have set out from its shores to intercept and plunder the sea-going traffic.

The expedition undertook the partial clearance of four sites. The most important of these was called Sumuram (vocalization uncertain) in antiquity. Unfortunately the



FIG. 1. PLAN OF KHOR RORY FORT

name is not found in our other historical and geographical sources. This site, located on the shore of the brackish lake Khor Rory about 29 miles east of Salalah, was a walled fortress, which dominated the best ancient harbour in the entire area.

In the course of the excavations, seven stone inscriptions were found in the gateway which state that Sumuram was built by Iliazz Yalit I (the Eleazus of Strabo), who ruled Hadhramaut from his capital at Shabwah (ancient Shabwat) about the middle of the 1st century A.D. This is our first clear proof that the kings of Hadhramaut controlled an area extending more than 800 miles from west to east, which included the incense-producing region of Mahra and Dhofar as well as much of the land traversed by the

¹ See *Archaeology*, VII (1954), p. 254.

incense-laden camel caravans. Although Sumuram existed for several centuries, it is not known whether it remained under the hegemony of the kings of Hadhramaut for the entire period. That it was virtually abandoned by the time of the introduction of Islam appears certain, since the most prominent temple,² called 'Ilum and dedicated to the moon god Sin, was never converted into a mosque nor used for any other purpose. That such was the practice in this area is illustrated by an ancient temple excavated at Khor Maghseil, located about 60 miles west of Khor Rory, which had been converted into, or rebuilt as, a mosque in early Islamic times.

The ruins of the ancient port of Mirbat are probably buried beneath modern Murbat. At some time in the Islamic era, the ancient site was abandoned and the city relocated to the east. Three or four generations ago the new city was deserted in turn, presumably because its buildings required extensive repairs, and once again the ancient site by the sea was re-occupied.

The fourth site at which excavations were carried on was al-Balid. The mound there is the largest yet discovered in the area and measures approximately 400 by 1200 metres. Unfortunately it had no harbour and could receive ships no larger than small fishing craft. Literally dozens of wells supplied abundant fresh water, so that gardens and groves thrived. The city was protected both by a wall and a moat, formed largely by an extensive natural inlet.

The site, which had been abandoned before the 19th century A.D.,³ was almost certainly the city known as Mansura. The latter was either built or rebuilt in the 12th century to replace the war-devastated city of Dhofar. Whether or not al-Balid is the site of ancient Dhofar is still uncertain. Though no inscriptions were found that might aid in the identification of al-Balid, the pottery and other artifacts should furnish a clearer picture of the date and development of the site when they have been carefully studied. Provisionally, the bulk of the coins can be assigned to the 14th-16th centuries A.D. although some probably belong to the 11th century. The latter, if correctly dated, suggest the identification of al-Balid with Dhofar. If this identification should prove to be wrong, however, Dhofar may have been located on the rocky terrain behind al-Balid, where traces of former habitation are scattered. The importance of the site to the frankincense trade was vividly illustrated by the discovery of 108 pounds of frankincense with distinct imprints of woven reed mats or baskets massed on the floor of one of the rooms excavated.

To the north of the coastal plain, which is never more than nine miles wide, the mountains rise abruptly to an altitude of 4000 feet and slope gradually northward, yielding finally to the sands of the desert, the Rub'-al-Khali. While most of this area is indescribably desolate, frankincense flourishes along the apex of the mountains where it is nourished by an annual rainfall of about 30 inches. As might be expected, ancient sites are found in this area and some are apparently earlier than any found near the sea. Further surface explorations and soundings will set the stage for future excavation and for a more detailed study of the early history and culture of this little-known country.

FRANK P. ALBRIGHT.

² Frank P. Albright, 'The Himyaritic Temple at Khor Rory (Dhofar), Oman', *Orientalia*, xxii, fasc. 3 (1953), pp. 284-7; A. Jamme, 'Une inscription hadramoutique en bronze', *Orientalia*, xxii, fasc. 2 (1953), pp. 158-65.

³ The inhabitants probably moved out to smaller, unwallled villages, which were abandoned when Salalah was built. Salalah is now being slowly abandoned in favour of al-Hafa on the shore, and it is probable that the name will go with it.

Reviews

THE EGYPTIAN COFFIN TEXTS. By A. DE BUCK. Vol. v, being vol. 73 of the *University of Chicago Oriental Institute Publications*. University of Chicago Press, 1954. 10 dollars.

With this volume Professor de Buck continues the publication of those religious texts found on the great wooden coffins of the Middle Kingdom in Egypt. These Coffin Texts are of great importance for the understanding of Egyptian religion; they form the link between the strictly royal Pyramid Texts of the Old Kingdom and those texts which make up the Book of the Dead in the New Kingdom. In the Coffin Texts we observe the democratization of the beliefs contained in the Pyramid Texts; in them we can also observe the triumph of the popular Osirian religion of the dead over the more esoteric religion of Rē' which pervades the Pyramid Texts.

In the Volume here under review are published the hieroglyphic texts of Spells 355 to 471. Three important groups of texts are contained within these numbers. The first group consists of Spells concerned with the proper exercise of bodily functions and the receipt of advantages due to the deceased in the Underworld, e.g. *Spell for possessing water and not dying in the Necropolis* (356), *A man's not being eaten by a snake in the Necropolis* (375), *Not taking a man's magic away from him* (392). Any efficacy which such spells were expected to possess must have resided in their titles alone, because the main parts of most spells consist of vague mythological allusions, addresses to gods and declarations about the nature of the deceased.

The central group of Spells is concerned with the Ferryboat in the Underworld. The very long Spell 397 is primarily an extended address to the boat and is entitled: *Spell for bringing the ferryboat of heaven in the Necropolis*. Perhaps the most interesting spell of this group is 398, which is a further address to the ferryboat in which its different parts are identified with minor deities. Forty-eight identifications of parts are made and this wealth of technical terms is of first importance for lexicographical reasons; it also illustrates the degree to which the science of boat-building and navigation had been developed by the Ancient Egyptians.

The second part of the volume contains first a number of miscellaneous Spells aimed at the avoidance of unpleasant things, e.g. *Spell for driving away the crocodile which seizes the magic power* (424), *Spell for living after dying* (438), *Spell for driving the Merty goddesses from coming to take the soul of a man away from him* (441). Then follows the third important group of Spells, dealing with the *Sekhet-hetepu*, the Field of Offerings where the blessed dead sojourn. The deceased hopes to become *Hetep, Lord of the Field of Offerings* (464); he hopes to enjoy in the Field of Offerings all the advantages of the earthly life: *to see the fields, the cities and the nomes, to plough, to reap, to see Rē', Osiris, and Thoth every day, to possess water and breath and to do everything that he desires* (from 468).

As in his earlier volumes de Buck here presents accurate copies of the texts with the parallels arranged side by side. Thus the student is able to study all variant readings with great ease and with the certainty that all the material lies before him. According to the scheme of the whole work the volumes of text—of which we may expect one or two more—will be followed by a volume containing a general introduction, analyses, a palaeographical section, a concordance of the texts with those of the Pyramid Texts and the Book of the Dead, a translation of the whole and indexes. Until this final co-ordinating

volume is published the difficulties of using the volumes of text are considerable. The physical task of working through five large volumes of solid Egyptian texts is immense and occasional consultation is practically impossible. Now that the series is so far advanced we must necessarily endure these inconveniences with patience, being at the same time thankful that the editor has been able to pursue his laborious task with such devotion and pertinacity. The Chicago University Press is to be congratulated on the appearance of the volume which maintains the high standard of its predecessors.

T. G. H. JAMES.

BARROW EXCAVATIONS IN THE EIGHT BEATITUDES: The Bronze Age Cemetery between Toterfout and Halve Mill, North Brabant, Holland. By W. GLASBERGEN. *J. B. Wolters, Groningen, 1954. 27.50 Dutch guilders.*

This volume, containing 338 pp., 75 text figures and 22 plates, was an accepted thesis for a doctorate in the University of Groningen, and is a first-class record of barrow excavation; it exemplifies Professors A. E. van Giffen's success in establishing a School of field archaeology which has an advancing technique based on his own high achievement.

That the thesis should have been printed in English may perhaps be regarded in part as a tribute to the achievements of our countrymen in research on prehistory—the obligations of the author to Professor Hawkes, in particular, are referred to in the Preface: whatever the reason, the ready accessibility of the detail of this important book to students in this country and America will be much appreciated.

The region of the province of the Netherlands mentioned, in which barrows are numerous, is largely fen and moorland, both now being reclaimed, as our British waste lands are, for agriculture and forestry; the group discussed were in particular danger of destruction. Thirty-four tumuli (and a ring-ditched urnfield) were investigated between 1948 and 1951, the 'quadrant method' familiar to workers in this country being used. Two of these are described in great detail, the rest fully but economically. The record is organized with great forethought, each plan (with few exceptions) being on the *recto* page, with the text beside it on the *verso*: under the title of each is a one-line summary. Such thoughtful collaboration between printer and author, seldom seen in our English work, is very attractive.

Most of the barrows had post-circles, double or single, intended to be seen; a few close-set stakes similarly disposed, are regarded as temporary. This interesting aspect of the research is dealt with in great detail. Barrows were often re-used, once or several times by the same people, another, or more, rings of posts being constructed.

The ritual was cremation, the period Early and Middle Bronze Age, the pottery type a cordoned cinerary urn. This pottery, soil samples, cremations and charcoal samples are analysed in detail: thereafter there is a general study of the 'Implications' of the results attained, occupying 200 pages.

This study is important. An analysis of Netherland post-and-stake-circle barrows—over 250 of these neolithic and bronze age monuments are known—is followed by consideration of other continental analogues, and by an examination of the comparable researches in Britain, particularly in Yorkshire, Lancs., South and West Wales and Dorset.

The pottery types in the Netherlands—bucket and barrel forms—have hitherto been called 'Deverel' urns. This unwise—as it turns out—use of the term is in part due to the advanced character of our L.B.A. studies: the idea that these urns are connected with the 'urnfield movements' which led to their appearance in England is now shown to be incorrect. Such types in the Low Countries represent *pre-urnfield* intrusions from Britain; they are, in short, devolved overhanging-rim urns.

It is probable, the author thinks, that Northern France and Western Belgium played the part in these intrusions, originally assigned to the Lower Rhenish region.

A chapter on Burial Ritual is of interest to English readers in view of the work done here in this new field of study, in recent years. Mortuary houses occur in one case associated with trunk coffins of the Early Bronze Age; ritual pits and fires are recorded, and the 'temporary stake circles' are akin to those well-known from excavations in Central and South Wales and Dorset. The author indeed affirms that 'for the future study of the relations between Britain and the Continent the burial ritual will be at least as important, perhaps, as pottery and bronzes'. The series, in sequence, of burial acts, ritual and customary, in the case of one barrow, is set out at length in the manner recently adopted in this country (p. 157), though it must be said that the pictorial summary which accompanies it is an unwise precedent!

Manifestly, Dr Glasbergen's work should be on the shelves of every barrow digger and student of the Bronze Age in Britain—and in every University Library. CYRIL FOX.

THE ROMAN VILLA AT LLANTWIT MAJOR IN GLAMORGAN. By V. E. NASH-WILLIAMS. *Reprinted from Archaeologia Cambrensis*, CII, 89-163. 1953. *No price stated.*

The Roman Villa at Llantwit Major, discovered and partly explored in 1887-8, has now been scientifically excavated and fully published. The position on the fringe of the civil province is important. The plan is of the transitional double courtyard type, with a main L-shaped residence, subsidiary buildings, including a basilican house, and enclosing earthworks. Occupation started about 150 and reached its greatest prosperity in the 3rd century. The main building was dismantled about 300, but occupation continued through the 4th century in the basilican building, the inhabitants burying in a (?) Christian cemetery on the site of the dismantled main house. A notable contribution to the study of the Roman countryside. C.A.R.R.

DIE BRONZEZEIT IN SÜD- UND WESTDEUTSCHLAND (HANDBUCH DER URGESCHICHTE DEUTSCHLANDS, herausgegeben von Ernst Sprockhoff, Band I). By FRIEDRICH HOLSTE. *Berlin, De Gruyter*, 1953. pp. 128, figs. 13, pls. 26, maps 13. DM 25.

DIE BRONZEZEITLICHEN VOLLGRIFFSCHWERTER BAYERNS (MÜNCHNER BEITRÄGE ZUR VOR- UND FRÜHGESCHICHTE, Band IV). By FRIEDRICH HOLSTE. *Munich, C. H. Beck*, 1953. pp. 56, figs. 4, pls. 18, maps 5. DM 14.50.

OTÁZKA PŮVODU A ROZŠÍŘENÍ MEČŮ LIPTOVSKÉHO TYPU A MEČŮ S ČISKOVITOU RUKOJETÍ. (The Origin and Distribution of Swords of the Liptov Type, etc.). By J. HRALA. In *Archeologické Rozhledy*, VI (Prague, 1954), pp. 215-26, résumé in French, pp. 285-6.

Both of the works by Holste now published are posthumous, the author having lost his life in Russia in 1942, soon after his appointment to succeed Professor Merhart in the chair of Prehistory at Marburg. They necessarily suffer from the lack of their author's own hand to revise them in the light of discoveries during the last twelve years, and this is particularly serious in the case of the *Handbuch*, since this purports to be a survey of the Bronze Age (in the narrow Reinecke sense) in a large part of Central Europe, which has hitherto never been studied as a whole and in such detail, and takes its place besides two other volumes, by Buttler and Sprockhoff respectively, that gave balanced and up-to-date

accounts of similar large units of German prehistory when they were published fifteen years ago.

The piety of Holste's colleagues, in publishing the new *Handbuch* practically without revision, has undoubtedly been justified in so far as the book is a monument to the author's brilliance as a typologist. None the less, the work is something less than its title would imply to most people, and this is not due entirely to the excessive one-sidedness of the available material during the greater part of the period studied. That is not to deny that Holste's refined classifications of the bronze and ceramic types that recur in the grave-groups, his judicious handling of their distributions and mutual relationships, and the numerous accompanying maps and illustrations, constitute an indispensable work of reference for the student of European prehistory. But far too great a part of the book is given up to abstract typology, and far too little space (and particularly illustration), devoted to living culture, for the book to justify its claim to be an account of the Bronze Age in South and West Germany, in the way that Professor Piggott's new book is an account of the Neolithic cultures of the British Isles. Notice, for example, how little is said about the metallurgy which defines the period: the work of Witter and its implications for South Germany, some of which was published in 1938, is not even mentioned! It is, of course, only fair to add that it would have been difficult, in German conditions, for Holste to escape the framework of study prepared for him by the excessively typological school of prehistory in which he was trained or the trammels of Reinecke's chronological system.

So it is that though the main theme of the book, quite understandably, is the Tumulus Bronze Age culture of Reinecke 'B' and 'C', place must be given to the quite different cultural groups that constitute Reinecke 'A' and 'D' and in the case of the former, at least, are still treated as chronologically as well as geographically distinct from 'B' and 'C'. But whereas Holste can study the eight regional groups of his Tumulus Culture as they should be studied, together in an interrelated series stretching from Austria and Bohemia to the Forest of Haguenau, because the whole nexus has its centre of gravity in South Germany, he cannot present the scattered Adlerberg and Straubing groups in perspective because, as he says, there is no specifically south German Early Bronze Age and these groups derive their types from cultures which are 'Late Neolithic' in Reinecke's scheme (or 'Middle Neolithic' in Piggott's!), or have their centres outside of Germany, in the West Alpine zone on the one hand, or on the Middle Danube on the other. It may be noted here that Holste did not make the mistake, found in some English circles today, of underestimating the creative importance of Kraft's Rhone Culture in relation to the Straubing and Aunjetitz groups: the more pity that he could not study the Circumalpine Early Bronze Age as a whole. Similarly, though he refines on Reinecke's chronological compartments to allow for an initial phase of the Tumulus Culture in which most groups have a common denominator of primitive metal types derived from Hungary, a phase of developed provincialism containing most of the rest of Reinecke 'B', and a late phase corresponding to Reinecke 'C' but overlapping with 'D', he still cannot face up realistically to the apparent hiatus of settlement in the main river valleys between Reinecke 'A' and 'D'. This is all the more remarkable in that Holste's own judgment could not suppress the Tumulus Culture sherds found near Straubing and now reinforced by the Austrian Early and Middle Bronze Age pottery found in the new, Jungmeier cemetery at the same place; and he is quite willing to admit that the rarity of Bronze Age forms in the Lower Rhenish barrows shows that 'Late Neolithic' forms here had a long survival. Professor Childe's difficulties with the Reinecke system for the South German Bronze Age are familiar: Holste has come some

way to meet him by admitting that 'c' largely overlaps in time with 'd', and the well-known amber spacer plaques (mentioned but not illustrated by Holste) together with the new dating evidence for bell-helmets, might have led him, had he survived to breathe a freer air, to admit some overlap between 'a' and 'b'. But the difficulty is inherent in a system which allows the combinations of metal types which form in the grave-groups of particular districts at particular times, according to the nearness of production centres, to grow into real cultural units and draws too sharp and too lasting distinctions between upland pastoralists and lowland agriculturalists. A greater emphasis on pottery would help, for here the earliest Urnfield groups are not so far from the latest Straubing ones, as Holste admits.

In the sphere of historical interpretation there is undoubtedly some truth in Holste's picture of Late Neolithic pastoralists, mainly of Battle-axe origin, on the wooded uplands of South Germany, remaining almost untouched by the channels along which Early Bronze Age metal types spread, but at last receiving a range of bronze and ceramic types from a distinct eastern source about the same time that the Straubing group was overtaken by a disaster reflected in the numerous hoards of early bronzes and ingots. There is interest, too, in the distinction between the Adlerberg groups as pure Bell-beaker decadence and the Straubing groups as mixtures in varying proportions of Bell-beaker and Middle Danubian elements. It is here that one feels the need for another *Handbuch* that will consider Reinecke's Late Neolithic and Bronze Age 'a' as a whole, in Switzerland, Austria and northern Italy as well as in southern Germany, and do justice to that primary metal using culture which gave the Beaker Culture in western Europe its non-Iberian ceramic forms (polypod vessels, chip carving, etc.) and metal types (round-heeled daggers, lozenge awls, halberds, discs and lunulae with embossed dot ornament, etc.). But it is as a typological manual that the present *Handbuch* will stand.

Holste's other book, on the solid-handled swords of Bavaria, achieves more complete success within its narrower limits. This has been prepared from an unfinished manuscript of Holste by his fellow pupils at Marburg—Drs H. Müller Karpe and G. Kossack, revised and augmented by its editors and brought up to date by the inclusion of some notable recent discoveries in Austria, which strengthen the connecting links between the earliest Hungarian swords and the Bavarian swords of the Spatzenhausen type which they inspired. Unlike it, too, this book has been provided with fully documented inventories of finds, and the format, type face and numerous good illustrations altogether make it a most attractive work. It does not pretend to be more than a typological study, but as there has hitherto been no book doing for South Germany what Sprockhoff's book did for the North, its value is great. Its scope is, of course, limited to the solid-handled swords of Reinecke's Bronze Age 'b-d', but it contains important observations on Hungarian prototypes and their diffusion in Central and North Europe, and the European distribution of the Bavarian swords with octagonal handles is also given. Holste believes that though the latter type was of Bavarian Tumulus origin, several centres of production grew up elsewhere, including the North. He emphasises the different associations and distributions of the octagonal handled swords and the 'Riegsee' swords introduced by the earliest Urnfield invaders in Bronze Age 'd', and the contrast in distribution between the Riegsee swords and the 'Rexheim-Monza' swords with triangular hafting plate is well brought out by a map.

Part of the sequel, in Hallstatt 'a' and 'b', is given by Hrala's recent study in *Archeologické Rozhledy*. This deals with solid-handled swords of the 'Liptov' type, with horizontally profiled handles and swords with cupped pommels, and gives inventories and distribution maps covering Central and North Europe. Hrala believes that

there were two centres of production of the former type, the earliest near the Tatra Mountains and the second, in South Germany, lasting into Hallstatt 'B'. The cupped type is widely scattered in the Carpathian area and East Germany and lasts through Hallstatt 'B'. The importance of these sword types for West European archaeology lies in the facts that the Urnfield expansion carried them far into France, and that the Mörigen and Auvernier types of the West Alpine smiths, which were partly inspired by them, were the favourite weapons of the Hallstatt 'B' Urnfield invaders in France.

All the works reviewed serve to reveal the enviable wealth of southern Central Europe in material for typological study in the Bronze Age. It is to be hoped that the revived prosperity which the books also illustrate will lead not only to even more refined typological studies but to the planned excavations which are so badly needed to control them and permit a more balanced picture of cultural history. H. N. SAVORY.

MAN, TIME AND FOSSILS. By RUTH MOORE. *Cape. London. 382 pp. 1954.*
21s.

When Cuvier said 'L'homme fossile n'existe pas' he was right in the sense that the fossil record of man is something which has been found in the last hundred years. It was in 1856 that the long bones and skull of a man-like being were found at Neanderthal near Düsseldorf. The skull which gave its name to Neanderthal man was the subject of a great controversy, some accepting it as an early hominid, others declaring it to be a pathological idiot. One scholar declared it to be 'one of the Cossacks who came from Russia in 1814', but another found it that 'of a powerfully organised Celt, somewhat resembling the skull of a modern Irishman with low mental organization'. These variant views were being exchanged in the months that lay before that memorable meeting of the Linnaean Society on July 1, 1858, when the Secretary read papers by Charles Darwin and Alfred Russell Wallace. The *Origin of Species* appeared in the following year and gradually the learned world has accepted the antiquity of man and the existence of fossil man and of early man's fossil tools. The disputes now are about the authenticity and antiquity of individual fossil men, and the relationship of the fossil hominids to each other.

In this very informative and well-illustrated book Ruth Moore tells us fully the controversial history of the discovery of fossil man in the last hundred years. Her first section deals with the development of a theory of organic evolution from Charles Darwin to Mendel, Haldane, Fisher and Wright. The second section of her book is called 'Man's Buried Record' and she concentrates on Dubois and von Königswald in Java, Black and Weidenreich in China, and Dart and Broom in South Africa. She tells these stories extremely well, and what good stories they are—Dubois locking the bones of *Pithecanthropus erectus* in strong boxes in the Museum at Haarlem because he was hurt and discouraged by adverse criticism, refusing to let anyone see them for thirty years, and then suddenly announcing that, thirty years before, he had actually found two other skulls as well as *Pithecanthropus*; the drama of the finding of *Sinanthropus* and the tragedy of the disappearance of all the skeletal remains of Peking Man in the war, despite all the efforts of the Looted Properties Division of the Far East Command to find them; and the human drama of Broom's disputes with the Historical Monuments Commission of South Africa. Ruth Moore is concerned more with the factual presentation of her material than comment, but she quotes with approval Teilhard de Chardin's verdict at the Wenner-Gren New York conference in 1952 that 'it is apparently in the depths of Africa and not on the shores of the Mediterranean or on the Asiatic plateau that the primeval centre of human expansion and dispersion must have been

located, long before this centre shifted in much later times towards . . . Eurasia and America'.

The third section of the book deals with ways of dating the organic evolution and fossil record of man. There are good accounts of the use of uranium for dating the earth, and particularly useful and up-to-date accounts of Oakley's fluorine technique and the development of Carbon 14 for dating the last 25,000 years or so. A good note on the recent Piltdown man controversy has been added in the press. This is a very valuable book for any reader wanting to know the current position in human palaeontology and the stages by which that position was reached. Throughout the book there is a tendency to forget that man left cultural as well as skeletal fossils, but the book does not pretend to deal fully with the archaeological record.

GLYN E. DANIEL.

ANTHROPOLOGY. By J. E. MANCHIP WHITE. *English University Press*, 1954. 6s.

This is one of the books in the 'Teach Yourself' series, in which Archaeology, Geology, etc., have already been surveyed. The latest volume is a welcome addition, although few anthropologists would, I think, really envy the author's task of compressing his subject into just under 200 pages. For systematic anthropology is—and there is no shame in this—still very much a growing and only partly-crystallised subject. Its methods, its aims, even its scope and effective field, are constantly debated (occasionally with a certain acrimony). This, of course, is true of almost every subject in which active minds are at work. But anthropological theory has been particularly affected by the changes in the climate of thought and outlook in the civilised world during its short life of a few generations. In the 19th century the emphasis was on its place among the 'Humanities'; in the 20th century many anthropologists, to establish the credentials of their subject, tend to formalise it and to claim for it the authority of a 'scientific discipline'. But in anthropology least of all, among the subjects that combine art and science, is the present the time for dogmatism. Meanwhile, in recent years, there has been maintained a steady flow of detailed monographs on tribal peoples, based on lengthy field-work. It is these—equivalent to the excavation-reports of field archaeology—which form the empirical testing-ground in the subject. No doubt it is for this reason that Mr Manchip White concentrates mainly on the latest writers and discoveries. Theory, principles, the strategy of future research, the teaching of pupils—all have to be (or should be) hammered out from the observed data and material objects brought back from systematic 'field-trips'. And of course there is the hope (although anthropologists differ in their emphasis on this) that government policies can be informed, or even guided, by anthropological findings.

How has the author put his material into shape? There are five chapters. The first two outline Physical Anthropology, beginning with a summary of the investigations into fossil apes and the ascent of *homo sapiens*, and then passing to the ethnic types, and distribution, of mankind over the globe. Chapters 3–5 deal with Cultural, Social and Applied Anthropology. The treatment is broad and general, but satisfactory; particularly if taken as a stage towards future reading. Short bibliographies of general works are added to each chapter, but it is perhaps a pity that more references to first-hand accounts of field-work were not included.

The general result is a short introduction which can be well recommended to all archaeologists who would appreciate a business-like summary of the present state, hopes, and difficulties of this allied discipline; and it can also be recommended for those just beginning the study of Anthropology at the universities. The presentation is perhaps less full of fire than that of R. R. Marett's introductory *Anthropology* (Home University

Library) written 29 years ago, but it is in many ways preferable to some of the more portentous general works which have lately appeared, for example in the U.S.A. The author wisely concludes that in the final analysis the prime qualities needed by an anthropologist are patience, insight and common-sense. There is usually some scepticism among specialists about books for the 'general reader' in their own field, but within its set scope this book has achieved its aim very well.

JOHN BRADFORD.

AIR RECONNAISSANCE OF SOUTHERN BRITAIN. By J. K. ST. JOSEPH. *Journal of Roman Studies*, XLIII, 1953, 81-97, plates VIII to XVI. Published with the aid of a subvention from the Council for British Archaeology.

First and foremost, a tribute of grateful thanks to the R.A.F. which enabled these photographs (and many others) to be taken and to the Council for British Archaeology which has made it possible to publish a selection of them covering the period 1945-52. Then our congratulations to Dr St. Joseph who has been enabled to find so many new and important sites and record them by photography. Some of them are as sensational as any taken hitherto; who would have suspected that CVNETIO, now a cornfield on the Kennet near Marlborough, was once a town with walls 10 to 15 feet thick and bastions? PLATE XIII, 2, shows bastions, a gateway, streets and houses. The defences belong to two distinct periods.

Badbury Rings near Wimborne, Dorset, has been photographed and described before, but Dr St. Joseph's picture of the ploughed field, north of the hill fort, in which two Roman roads cross is the best so far. I take this opportunity of correcting an error; in 1928 I said that the bank (x on the plan, *Wessex from the Air*, p. 58) was an enclosure-bank of comparatively recent origin. I saw it last year stripped of turf, and it is plainly a prehistoric bifossate boundary-bank. Dr St. Joseph's air-photo shows that it is continued as the irregular dark line running roughly parallel to the other Roman road across the middle of the photograph. That line was visible on the photograph reproduced on Plate XVII of *Air-photography for Archaeologists*, which I wrongly suggested might be a traffic-rut. It now seems more probable that this linear earthwork, which is older than the Roman road from Salisbury to Dorchester, bounded the fields round the hill-fort, which are still faintly discernible both on air-photographs and on the ground.

PLATE XV, 2 (Smacam Down, Dorset), is welcome evidence that the Celtic fields, now rapidly being obliterated, are not being overlooked.

Perhaps the most remarkable of all these photographs are those of VRICONIVM (Wroxeter, Salop; Plates XI, 2; XII) which show not only the streets and houses in great detail but even the mosaic pavements, which appear as white patches (parching).

Everyone is eagerly awaiting the substantive publication of all these discoveries, which is being undertaken by the Cambridge University Press. Meanwhile Dr S. Joseph is pursuing a thoroughly sound policy in publishing interim reports of this work, and concentrating on the work itself while the going is good.

O.G.S.C.

MEMOIRS OF THE NATIONAL MUSEUM OF VICTORIA, no. 18; *Melbourne*, 1953 (no price given).

Among these articles is one of archaeological importance, written by Edmund D. Gill (Palaeontologist at the Museum), entitled 'Geological evidence in Western Victoria relative to the antiquity of the Australia Aborigines' (pp. 25-92).

Anyone who has ever tried to reconstruct an archaeological sequence for the great quantity of Australian stone implements will gladly welcome firm evidence of any kind. It seems likely from the number and variety of tools that there is a fairly considerable

time-scale behind the surviving stone industry. But the difficulty of finding any sites which show a sequence of cultures *stratigraphically* is a crippling disadvantage. Archaeologists have therefore been left guessing—and in circumstances even more unfavourable than in those parts of Africa where prehistory also labours under natural difficulties of inadequate stratigraphy.

For a specialist in European prehistory it is an interesting and salutary experience to be faced with box after box of Australian implements and yet to be unable to assign the contents to a cultural or chronological sequence. After repeatedly falling back on 'ancient', 'period uncertain', 'proto-aboriginal' and other euphemisms, he may feel a little more forgiving towards the 'Ancient British' or 'Early Celtic' labels which his forefathers bestowed in such an apparently open-handed manner.

But in the Lake Colongulac area of Western Victoria, Mr Gill now claims to be able to put some chronological arrangement into the inert mass of 'museum specimens'. This is done either (i) by the age of their *geological* context, or (ii) by radio-carbon estimates. According to the author, several periods of aboriginal occupation in the area can be established. His conclusions form a very good basis for discussion and research.

(1) From the geological context, he claims that evidence points to aboriginal occupation in the late Pleistocene, a period of extinct giant marsupials. He adduces the fossil jaw of 'dingo' dog (believed to have been introduced by aborigines), a cut bone (once doubted, but now thought to be an artefact) and a 'millstone'. (2) Evidence of Mid-Holocene occupation is claimed for a human female skeleton, occurring in an ancient dune formation and 'something like 5000 years old'. (3) At another site, 'an axe, bones and other circumstantial evidence shows that the aborigines were present when the Tower Hill volcano first became active, which is thought to be not very much more than 1000 years ago'. (4) Charcoal from an aboriginal camp-site at Goose Lagoon was sent to Professor Libby for radio-carbon examination. This gave an age of 1177 ± 175 years. (5) And, finally, charcoal from a site on Keroit beach has been dated 538 ± 200 years old by a C14 count. The whole account is carefully documented and equipped with plans, sections and photographs.

JOHN BRADFORD.

ROME BEYOND THE IMPERIAL FRONTIERS. By SIR MORTIMER WHEELER.
London. G. Bell and Sons, 1954, pp. 192, 38 plates, and map. 25s.

Sir Mortimer is a pioneer in many fields, and he has a gift of exposition both lucid and convincing. One can be sure in advance that the latest product of his pen will be alert, precise and penetrating. Also that his text will be properly equipped with plans and photographs.

In this survey of Rome beyond the frontiers, the German lands engross a large place. Many chance finds have been made, excavation has been methodical, and the results have been digested in works of synthesis. The objects found are various—coins and pottery, glass and metal. Some discoveries are rare and remarkable, like the silver treasure of Hildesheim. More important, however, are the less conspicuous objects—they may correlate with known facts or permit fresh deductions. For example, the abundance of finds in Bohemia speaks for Maroboduus' kingdom (pp. 19 ff.). Roman traders settled at his capital, as is known from Tacitus, and for some time after the fall of Maroboduus the princes of the Marcomanni remained in relations of amity with Rome. The 2nd century by contrast shows impoverishment. In that period, however, a notable civilization flourished elsewhere, in northern Germany. The sumptuous graves of chieftains of the Lübsow culture invite speculation (pp. 32 ff.). Not, apparently, an intrusive aristocracy, but the local newly enriched, so the author concludes. And in

Jutland steady traffic may be surmised, stable conditions—and perhaps ‘some measure of political cohesion’ (p. 92).

In Africa the caravan trade from the *emporion* on the coast penetrated far to the south. Further, the literary record attests Roman expeditions from Tripolitania to the land of the Garamantes (the modern Fezzan). Nor are traces lacking of the commercial relations. At Germa itself stands the well-known mausoleum; and graves in the vicinity have yielded imports of the 1st century (it is most useful to have a summary of the Italian excavations of 1933 and 1934, which were not published till 1951). That need occasion no surprise. Wholly peculiar, however, is the small fortified residence at Tin Han at the western foot of the massif of the Hoggar, a thousand miles south of Algiers. It contains a tomb, with the skeleton of a woman, elegantly decked, and with the remains of elegant furniture. Sir Mortimer hazards a guess about a Lady Hester Stanhope of another age—and some will recall *L'Atlantide* of the novelist Pierre Benoît.

Lastly, the Orient. The two paths of traffic with India, sea and land, now have a magnificent attestation. It was Sir Mortimer who at once detected Arretine ware in the museum at Pondicherry. The excavations at Arikamedu followed. There is no point, at this late date, in summarizing his own masterly account of the coastal stations and of the finds in the interior. One turns to the north—Taxila, the art of Gandhara and the recent French discoveries at Begram near Kabul.

No review can do justice to the rich harvest of this book. Indeed, the author himself has been compelled to set limits to his theme. Some may regret, but nobody can complain, that he has omitted Scotland and Ireland. Something perhaps should have been said about the Sudan. Again, the wide region from the middle Danube to the Caucasus is hardly represented. One can see why. There has been no kind of thorough exploration—and it would be mere pedantry to register stray finds like the votive Dolichenus hand from Myszkow (on the borders of Galicia and Bukovina), which was (and perhaps is) in the museum at Lwow (for the inscription, Dessau, *ILS*, 9171). That is sporadic loot. But it is worth while calling attention to a recent discovery that shows Roman diplomacy operating far beyond the imperial frontiers. On a rock face near Baku there is an inscription to Domitian, carved by a centurion of XII Fulminata, one of the Cappadocian legions (*L'Année épigraphique* 1953, 263). To round off the theme, let it be recalled that the same emperor exerted the influence of Rome deep in Central Europe. For counterpoise against the Marcomanni, he got into touch with peoples in their rear, the Semnones of Saxony and the Lugii of Silesia (Dio LXVII, 5, 2 f).

RONALD SYME.

SCIENCE AND CIVILISATION IN CHINA. Vol. I. By JOSEPH NEEDHAM, F.R.S. Cambridge University Press, 1954. I–XVII, 318 pp. *Illus.* (36 plates), 2 maps. 52s. 6d.

After extensive reconnaissances in the history of science in China, Dr Needham concludes, ‘between the 3rd and 13th centuries, the Chinese had a level of scientific knowledge unapproached in the West . . . and technological discoveries and inventions, often far in advance of contemporary Europe, especially up to the 15th cent.’ Such a claim astonishes, but only perhaps because the evidence upon which it is based, has hitherto been unavailable, and its very existence, for the most part, been hardly suspected. The ‘Empire of Learning’ which Robert Hooke long ago foresaw might be disclosed with a closer study of Chinese civilization, has in the event been almost exclusively in the realm of literature and the fine arts. Here promises have been fulfilled. But it has been so generally taken for granted that, since the Jesuits introduced in the 17th century certain aspects of Occidental science to the Chinese, science as such began in China then,

and had no prior history there. Certain inventions and discoveries, paper, printing, the magnetic compass and gunpowder, of course have long been known to have originated in China, but they have been represented almost as aberrations of the spirit of Chinese civilization, rather than dramatic instances of a long and sustained tradition of speculation and experiment, of innovation and invention.

This book then promises to be a *tour de force*. One says promises, since the first volume only has appeared and it consists simply of what the author calls 'orientations'. The duties of a reviewer therefore have hardly begun, since Volume 1 is purely preparatory to the main theme of the work, which will not be complete until Volume 7 has appeared.

There is little to comment upon in Volume 1. It has a useful and able résumé of such of the history and geography of China as is material to an understanding of the body of the work, the author assuming that his readers are unlikely to have even this background. There then follows a discussion of the possibilities of the intercommunication of scientific ideas between Europe and China, with a review, in the light of the author's discoveries in his field, of such problems as diffusion, simultaneous discovery, convergence and the like. The remainder of Volume 1 is taken up with bibliographies, indices, and maps. Having said this, there remains at the beginning of the book, a prospectus of the forthcoming volumes. The range and scope of Dr Needham's researches startles a conventional sinologist. Such a work could only have been undertaken, as the author modestly suggests, in a curious concatenation of circumstances. Dr Needham, a Cambridge scientist and long a student of the history of occidental science, having acquired a working knowledge of Chinese, had the unparalleled opportunity during the war of acting as scientific liaison officer between Chinese universities and the British Government, and in that capacity met most of China's scientists then concentrated in West China. With commendable resource and foresight, he persuaded scientists to take an interest in the history of their specialities, and his energetic collations and personal researches, both then and subsequently, have provided the body of this work.

Whatever Dr Needham's final conclusions might be, it cannot be said of him, as a sinologist has so often to say of an accidental author writing on Chinese themes, that he failed to consult and avail himself of the existing works of scholarship, not only those in Western languages, but often more important, those in Chinese and Japanese.

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EXCAVATIONS AT WARI, AYACUCHO, PERU. By WENDELL C. BENNETT.
ON THE EXCAVATION OF A SHELL MOUND AT PALO SECO, TRINIDAD,
B.W.I. By J. A. BULLBROOK. *Yale University Publications in Anthropology*, Nos.
49 and 50, 1953. *Yale University Press and Oxford University Press*. Bound and
sold together. Price, \$3.00.

The puzzle of the Tiahuanaco stylistic spread throughout prehistoric Peru—its origins, direction of movement, and cultural significance—is one of the most fascinating problems for the Peruvian archaeologist. The style, which takes its name from a major site in the south Titicaca Basin, is distributed from the Bolivian altiplano north to Cajamarca in the Andes and from the Majes Valley north to the Chicama Valley on the coast. Outside of Bolivia, the style deviates markedly from the assumed prototypes at the Tiahuanaco site. Because of these differences it has often been suggested that

Tiahuanaco as a Peruvian horizon style had a source or centre other than the Bolivian site. One of the places most frequently speculated upon as a Peruvian Tiahuanaco focus is the great site of Wari in the Mantaro basin near the modern city of Ayacucho. Wendell Bennett followed up this lead and excavated at Wari in 1950. This report is his story of those excavations and the subsequent analyses of the data.

Bennett found extensive refuse at Wari and obtained a stratigraphy of two major periods. The earlier of these periods he designates as the Wari. Wari polychrome pottery is similar to the Tiahuanaco ceramics which Uhle found at Moche and Pachacamac and which is also known from the Pacheco site on the south coast. The second major period, the Huarpa, seems unrelated to the Wari period in its ceramics. Apparently pre-Inca although relatively late, Huarpa is characterized by black-on-white wares which are vaguely reminiscent of the Late Chancay style of the central coast. Chronologically intermediate between the Huarpa and Wari periods in the stratigraphy is an Ayacucho polychrome style which can be derived, at least in part, from the Wari period pottery. Of particular interest is the fact that this Ayacucho polychrome is very closely related to the south coastal style, Nazca Y.

Bennett's data thus imply that the first Tiahuanacoid impingement onto the south coast must have derived out of the Wari period. Secondarily, the Ayacucho-Nazca Y development either had its rise in the Mantaro and from there diffused to the south coast as did the earlier Wari style, or Ayacucho-Nazca Y was a coastal product resulting from the original penetration of the Wari style into Nazca.

The situation is a complex one, and the story is not all one of pottery styles. For example, the Wari period appears to have participated in the highland traditions of fine stone masonry and stone-lined subterranean chambers as well as a number of other traits which it shares with Tiahuanaco proper and with the cultures of the Callejon de Huaylas. There is a suspicion that these linkages belong to older currents of ideas than the Tiahuanaco stylistic similarities.

I would agree with Bennett's final interpretation that the Wari style was secondary to Tiahuanaco proper and derived from it and that Wari served as the main radiation point for Peruvian Tiahuanaco influences.

The Wari report is the last contribution of one of the most able Americanists of our time. Bennett's sudden and tragic death is a blow to South American archaeology. His Peruvian and other South American writings are fitting monuments to the man.

In 1919 systematic archaeology was in its infancy in the Americas; however, in that same year, Mr J. A. Bullbrook, a geologist with some archaeological training, carried out a singularly able piece of archaeological research on the island of Trinidad. Thirty-five years later it stands as a creditable effort when judged by present standards, and it forms a significant link in the growing reconstruction of Antillean prehistory. The manuscript has been published almost as it was originally written. The author has made a few slight changes, and the editor (Irving Rouse) has added footnotes. These latter serve to orient the reader to the more recent terminology and classificatory system used in West Indian archaeology.

The Palo Seco site is a small shell and refuse midden on the south-west coast of Trinidad. It revealed a two-fold physical stratification of an upper layer of abundant shell remains (primarily *Donax striata*) and a lower layer of scant shell refuse in which the gastropods *Neritina* and *Purpura* occurred in high percentages. The cultural stratigraphy of the site does not correspond on a one-to-one basis with these midden zones. The great bulk of the pottery belongs to what Rouse has since called the Palo Seco culture. There were, however, in the lower levels of the refuse a few sherds of the earlier Cedros culture.

At the top of the midden Bullbrook found some pottery fragments and other artifacts which can be identified with types of the Erin culture.

In the broader setting of the Orinoco drainage and the West Indies, the Cedros culture, with its white-on-red pottery, represents the first movement of pottery-making agriculturists into the Antilles. The white-on-red pottery styles spread north and west as far as Puerto Rico. The subsequent Palo Seco period in Trinidad is transitional between this Saladero-Cedros-Cuevas white-on-red horizon and the later horizon of the incised and modelled pottery that is represented in Trinidad by the Erin culture. The Bontour period in Trinidad, evidences of which were not found at Palo Seco, is the final prehistoric-to-historic phase of the aboriginal culture sequence.

Bullbrook's report is notable for its careful reporting and for the clean distinctions which are drawn between fact and interpretation. The author's attempts to use ethnographic data to interpret the archaeological findings are admirable and always within bounds. The comparisons which Bullbrook draws between his Palo Seco findings and other archaeological materials in the West Indies are as good as can be expected considering the time at which the report was written.

GORDON R. WILLEY.

LATER PREHISTORIC ANTIQUITIES OF THE BRITISH ISLES. *Text by* J. W. BRAILSFORD, *drawings by* C. O. WATERHOUSE. *Published by the Trustees of the British Museum, 1953, 24 plates, 26 figures, 81 pp. text. Price, 6s.*

This attractively produced book is a companion to the *Antiquities of Roman Britain* (1951), and takes the place of those familiar volumes the *Bronze and Early Iron Age Guides*, and the post-Mesolithic parts of the *Stone Age Guide*. Naturally it is a guide to the subject instead of to cases of exhibits, and the modern approach as much as pressure of space has confined the scope to the British Isles. For, though a museum guide deals primarily with objects, there are instructive contrasts to be noted between the whole attitude of 30 years ago and that of the present. Then objects grouped purely by materials could be considered for their own sake and compared with objects of similar use from Europe and beyond. Now the Continent appears only as a source or destination. Grouping is by 'cultures', in effect by peoples, and at the same time Aryans and Kelts (and even Celts) are no longer even mentioned. Racial and philological archaeology is under a cloud; yet it is unfortunate that physical anthropology has not kept up with purely archaeological study sufficiently for a modern description of the culture-makers themselves to have been attempted, to replace that in the *Bronze Age Guide*.

In other respects the tradition of the earlier guides is maintained. The format and binding are the same, though the volume is thinner and the back very weak. (Could it not be of cloth as in some National Museum of Wales publications?). The illustrations are a prominent feature, as before. The drawings are all new and excellently clear, except the over-reduced bronze shields. The equally numerous photographs are also new, and mostly successful but they inevitably lose more in reduction. The Folkton drums and the Snettisham torc are the most striking plates; it is however not quite correct to call the torc unique, though the parallels are fragmentary. In each section of the book the pages of narrative are followed and amplified by descriptive and explanatory catalogues of the carefully selected illustrations. This very good procedure may be described as a cross between that of the *London Museum Catalogues* and V. G. Childe's *Bronze Age*. Minor omissions are pictures of an 'ogival' dagger and of a British coin.

The narrative text also conveys a surprisingly large amount of information, and generally overcomes the difficulties of compression and simplification. Some statements, however, do need qualification, not only those based on negative evidence such as 'There

was no hostility between the new [Neolithic] arrivals and the native Mesolithic hunter-fishers', or 'The Windmill Hill people—had no knowledge of textiles'; but also 'Britain became a province of the Roman Empire'. It is a pity to confuse bronze sword hilts and tangs. And is it possible for anyone other than the Crown to 'present' Treasure Trove? Presumably the National Art Collections Fund really met the cost of the reward.

A few more serious weaknesses may be noticed, since the volume will, one hopes, have a very large and long circulation at home and abroad. As the guide is based on the collections in the British Museum, the northern and western parts of the British Isles are less well treated than those nearer at hand. This can best be seen in the list of 'Bronze Age Hoards in the British Museum additional to those in Evans', itself perhaps not entirely in place in a publication of this kind. There is even a curious definition of the Food-vessel province as 'covering north-east Britain (*sic*) and south-west (*sic*) Scotland, and Ireland'. Uneven emphasis occurs again, unavoidably, from period to period. For though it has been possible to make use of Professor Piggott's work on the Neolithic, and of the intensive research by many excavators on the Early Iron Age in southern England, the need for detailed syntheses of the intervening periods is evident. Even as things are the paragraph on A/C Beakers needs modifying in various particulars. Later workers may or may not follow the decisions not to leave the Beaker Folk in the Bronze Age (as Professor Piggott does) and to make the universal acceptance of cremation the criterion for the beginning of the Middle Bronze Age, but they are an easy target for the opponents of the Three Age system. A similar difficulty is less clearly met; for the Early Iron Age, and with it the prehistoric period, is taken to end with the 1st century or the Roman Conquest, but, by implication only, a century or two later in still unconquered Scotland and Ireland. One wonders, why then? It is one of the positive merits of a bird's-eye view such as this book provides, that it exposes present inadequacies of knowledge and terminology.

Altogether anyone teaching or learning archaeology, whether elementary or advanced, will find this guide of the greatest value. It also has a good index, and even a scale of centimetres and inches for foreign readers.

ROBERT B. K. STEVENSON.

THE ARCTIC WOODLAND CULTURE OF THE KOBUK RIVER. By J. L. GIDDINGS, JR. *Museum Monographs. The University Museum, University of Pennsylvania, Philadelphia*: 1952, pp. ix and 144. Plates I–XLVI. \$2.50.

The interpretation of the prehistory of the Alaskan area has been considerably modified in the last fifteen years by a series of important finds. These have considerably lengthened the known prehistoric occupation of the area on the one hand, and by investigations of the nature of this report, have indicated a greater cultural diversity than had been apparent from earlier excavations which were concentrated primarily along the coastal fringe. This report, based on field work in 1940, 1941 and 1947, provides information on some 700 years of human history along the Kobuk river, which flows east to west into the Bering Sea just north of the Arctic Circle. A primary incentive to the field work was to obtain, if possible, a tree ring chronology which would serve not only to provide an accurate time scale for cultural change in the Kobuk area but would also aid in the interpretation of coastal sequences through cross finds. The master record, reflecting temperature changes in the Arctic, extends backwards from the present for about a thousand years. Another important feature in the field work was the presence of the Kobuk Eskimo who provided excellent ethnographic information on the behaviour of their immediate cultural ancestors. This factor, coupled with descriptions of the people of the Kobuk made from 1826 to the 1900's by British and American naval officers, enabled

Giddings to describe his finds in terms of a prehistoric ethnography. His extensive ethnographic notes and observations will be published later.

The thirty-six reported sites, most of which are located on the upper and middle reaches of the Kobuk, are all apparently within a short distance of the present water level. This may be an explanation for a failure to identify sites of any considerable antiquity which should theoretically, as Giddings implies, be in this as well as other areas of interior Alaska. Old Kotzebue (A.D. 1400), it should be noted, was located 'along older beach lines' at Kotzebue Sound. Future studies in the Inland zone of Alaska might well be pursued in association with studies of the post-glacial climatic changes to ascertain the former forest extent, particularly at the time of the post-glacial maximum.

The description of the economy and technology proceeds from the ethnographic present back through time to A.D. 1250, and is interpreted in the light of environmental influences which were significantly different in the upper valley of the Kobuk and at its mouth. Under the major heading of Economy and Technology, Giddings presents the evidence for Village and Houses, Fishing, Land Hunting, Tools and Manufactures, and other economic activities. For each sub-heading the modern practices and then the latest culture group, Ambler Island (A.D. 1730-1760, Upper River) are presented first, followed by earlier cultural and area groups which are called Intermediate Kotzebue (A.D. 1500, Lower River), Old Kotzebue (A.D. 1400, Lower River), Ekseavik (A.D. 1400, Middle River), and Ahteut (A.D. 1250, Middle River). There is an analysis for each economic subhead which gives the temporal and cultural position of the various cultural items and an interpretation of each human activity in the Arctic sequence. There is a brief discussion of Tree Ring Dating and the Summary and Conclusion. The volume is copiously and well illustrated.

The thesis is presented that in the Kobuk a distinctive Arctic Woodland Culture has existed for at least seven hundred years and is a cultural entity which cannot be explained as one marginal to the two formulated cultural patterns of the sea hunters and the tundra dwellers. While this forest zone culture has activities and artifacts in common with the coastal Eskimo and caribou hunters there is an important core which needs to be compared with woodland adaptations in Siberia and in Alaska and Canada. Future excavations may well uncover early Arctic Woodland periods which will serve to bridge the gap between the early ceramic forest zone cultures of north-east Asia and their cultural counter-parts in eastern North America. It would be a great advantage to inter-hemisphere studies if the Siberian data could be published with such a wealth of clear illustrations and with as strict adherence to the presentation of anthropological data.

JAMES B. GRIFFIN.

THE ANCIENT BURIAL-MOUNDS OF ENGLAND. By L. V. GRINSELL. 2nd ed. pp. 278, 12 figs., xxiv plates. Methuen, London. 25s.

Archaeological research has a tendency towards specialization not only on periods but also in method. A museum curator spends most of his available time on the objects in his collection. The excavator has to pay special attention to the modern development of excavating technique. The lecturing archaeologist will try to draw general conclusions and write handbooks. All these tasks have developed from the work done by amateurs in the 19th century. One could ask what is left to amateurism? Fortunately still a great deal. The simple documentation and inventarization of all that still survives and what has been accomplished by archaeological fieldwork is an enormous and most important task for the amateur. It is from this point of view that Grinsell's book on the ancient

burial mounds of England must be regarded. His book is a splendid example of what can be done by a 20th century amateur.

Grinsell is a specialist too, as he chooses to work only on barrows as they are in the field. And like so many specialists who enter adjacent fields he makes small mistakes. One of these fields is excavation. Modern research has proved the extreme complexity of barrows. A great number of them tell a long history of successive burials together with enlargements of the burial mound. In my opinion Grinsell considers a barrow too easily as a single monument. The existing outer form of a barrow might only say something about the latest development of the monument.

Another point to which Grinsell pays too small attention is the postholes found by excavation in the barrows (see H. Case, 'Barrows at Poole', *Dorset P.P.S.*, p. 153, note 4 for literature).

However all this may be, we would like to place the book in the hands of every student and interested layman of English prehistory. The vast material has been dealt with in a very clear way. The list of contents and three indexes make the book easy to use and refer to.

P. J. R. MODDERMAN.

A HISTORY OF THE ANGLO-SAXONS. By R. H. HODGKIN, 3rd edition, Oxford, 1952. 2 vols. £3 3s.*

This is not a revised edition but a reprint in photo-mechanic technique, with a few corrections made. The Appendix on Sutton Hoo, by R. L. S. Bruce-Mitford, is new. The merits of the book have already been pointed out in earlier review, so we are free to discuss chiefly the features which distinguish this from the earlier editions.

Our conception of history is today most subject to change in those periods where, for lack or rarity of written sources, we are mainly dependent upon archaeology. Every new discovery, and every re-assessment of an old discovery, reveals new aspects which supplement and complete our previous conception. But of course there still remains the problem of drawing historical conclusions from anonymous evidence; and we miss in the Dark Ages proper the influence exercised by personality upon the course of history. Even here however a lucky find may give us live history in an otherwise dark period. That happened in the summer of 1939 when the Sutton Hoo ship-burial was excavated, just after the second edition of this book had been published. As Bruce-Mitford rightly says, this was the biggest and richest of its kind ever made in England or even in Northern Europe, comparable only with the great bog-finds of Roman times or with burials like that of the Oseberg ship. The disposition of the burial and grave-goods are here superbly presented, and furthermore Bruce-Mitford has tried to clarify the historical implications of the finds. He gives an answer to the question of who was buried there. The regalia show that it was a king, and almost certainly a king of East Anglia, as the site is near the East Anglian capital, Rendlesham. The names of these kings are recorded by Bede, and it has been worked out which king it was that was buried here from the coins found in the grave, which are dated by experts to between 650 and 670.† That gives us a choice of three names: Anna, Aethelhere and Aethelwald. Bruce-Mitford decides for Anna who died in 654, both on historical grounds and because the burial was probably a cenotaph. There then remains to be explained why a pagan burial was given to a king who was a Christian; it is suggested that the ship-burial reflects the tradition of pagan

* The first edition was reviewed in *ANTIQUITY*, x, 1936, 234, and the second in xvi, 1942, 280. We wish to thank Dr Maria Bersu for kindly translating the present review. Ed.

† This dating is based upon French evidence and we do not accept it unreservedly. Ed.

burial, while the king himself may have been buried in consecrated (Christian) ground. After all the custom of burying, the personal property (*Hergewäte*) lingered on amongst the continental German tribes down to the beginning of the 8th century (especially for persons of rank and importance), in spite of Christianity and of burial in or near a 'personal church' (*Eigenkirche*).

The grave-goods throw a surprising new light upon the art and craftsmanship of the Anglo-Saxon goldsmith in the 7th century. Up to 1939, Kent had been looked upon as the only centre of this kind of gold and cloisonné work; but now Suffolk appears as another, new, centre, and to it may be ascribed also other hitherto isolated specimens. The cloisons and decoration show strong influences from the continent where this technique and these patterns were widely distributed in the south-west German-Alamannic region and in Lombard Italy. These connections are underestimated by Bruce-Mitford. Without them, however, the art of the 7th century Anglo-Saxon goldsmiths is unthinkable; they, like their fellows on the Germanic part of the continent, knew and drew upon the art-motifs in cloisonné and gold-work then in vogue all round the Mediterranean, whose richness in burials of Germanic tribes was incorrectly thought to imply a Germanic origin. In south-east England this technique attained an unparalleled perfection.

Other finds point to Sweden. The shield and helmet have close connections with that country and are even regarded by Bruce-Mitford as Swedish imports. The ship-burial itself points also to Sweden with its contemporary burials at Vendel and Valsgärde.

Thus the Sutton Hoo ship-burial is an important landmark in the history of the migration of the Germanic tribes, reflecting connections between England, Scandinavia and other parts of Europe. The direction of currents originating in the south might perhaps have been a little more strongly emphasized. Sutton Hoo and south-eastern England are the meeting-places of continental and Scandinavian traditions.

Sutton Hoo has greatly amplified our conception of the Dark Ages which was so largely based upon archaeological evidence; and the historical value of the evidence is brought out by the illustrations which are abundant and of a high quality. I should like to lay special emphasis on the usefulness of these illustrations. Many of them, being reproduced here for the first time, are of the greatest importance for both the archaeologist and the art historian, all the more so because not every historical publication reveals a consciousness of the value of archaeological evidence. GÜNTHER HASELOFF.

ARCHAEOLOGY AND HISTORY OF GUAM. By ERIK K. REED. *pp.* 133, 22 *figs.* 3 *maps.* National Park Service, Washington, D.C. 1952.

This publication, reproduced from typescript, apparently by photo-lithography, is by a competent archaeologist, who is chiefly known for his work in the South-west of the United States. He has treated his subject exhaustively, and described not only the archaeological remains and history of the island, but also the geographical, geological and biological setting, ending up with some recommendations for conservation and study.

When all has been said, the archaeology and history of Guam amount to very little. The aboriginal population, the Chamorros, an immigrant people of uncertain origin, apparently had no predecessors. They are generally believed to have arrived in Guam at a fairly recent date, but the author quotes a radiocarbon date of A.D. 1527 ± 200 from Saipan, another of the Marianas, which may make it necessary to revise this opinion. They had rather a simple material culture, based on an agricultural and fishing economy, with rough poorly-made pottery and no metal. The chief remains which they have left behind consist of rows of stone supports for houses, each consisting of a rough upright

with a mushroom-like top, called *latte*, which resemble the rick supports common until recently in this country. Most of them had died out by the end of the 17th century, more as the result of epidemics than of sporadic fighting with the Spaniards, and the present native population consists of Filipinos and Mestizos (Spaniard + Filipino or Chamorro).

The history of Guam before the 1939-45 war was uneventful. There was possibly a landing by Magellan in 1521; the island was regarded as Spanish from about 1565; it was visited regularly thereafter by the annual Manila galleon and irregularly by English and Dutch sailors and privateers, and first occupied in 1668 by Jesuit missionaries with a military guard. The evangelization of the Chamorros provoked a certain amount of fighting which ceased before 1690. In 1898 the island was first occupied by the United States and then ceded by treaty. It was seized by the Japanese in 1941 and liberated in 1944.

The surviving remains of Spanish and later date are few and insignificant, and nothing of any importance was destroyed in the bombardment of Agaña, the chief town, by the U.S. Navy in 1944. The author makes the most of what there is—some fragments of Spanish forts, a derelict house, a few bridges of no great age, and such relics of the late war as a Japanese submarine and the sites of American command posts—but this course can be carried too far, as the following recommendation (p. 131) about a bridge of recent but unspecified date shows:—‘A plaque or small sign on the Spanish bridge just off Marine Drive is desirable, but perhaps not essential—the effect of antiquity might be impaired by giving the construction period’! I can not believe that it is desirable to encourage belief in bogus antiquities.

The photographs have obviously not been improved by the method of reproduction, and some of them are altogether meaningless. G. H. S. BUSHNELL.

ENGLISH ART, 1100-1216. By T. S. R. BOASE. pp. xxiii + 331. Geoffrey Cumberlege: Oxford University Press, 1953. 37s 6d.

The President of Magdalen has incorporated in Vol. III of the *Oxford History of English Art* the Waynfleet lectures which he delivered at Oxford in 1950. His book is the outcome of years of fruitful research, as Professor of the History of Art in the University of London and as Director of the Courtauld Institute (1937-47). The study is set against the historical background of England and Western Europe; its theme is that in the 12th century, in architecture and painting, England is a great and at moments, supreme exponent of a European style. All the documentary evidence has been sought out and recorded.

Dr Boase has given a chronological survey of the building in cathedral churches, Benedictine monasteries and those of the new religious Orders; he has paid appreciative tribute to Sir Alfred Clapham's *magnum opus* on Romanesque Architecture, which was primarily concerned with ecclesiastical architecture. He has included castles and extended his survey to Scotland. He has called attention to special characteristics of English buildings, simplicity and largeness of scale as compared with those of Normandy, the multiplication of intersecting arches particularly in the chapterhouses at Wenlock and Bristol, the use of the beakhead ornament. He cites Durham as the first use of ribbed vaulting and endorses its structural value which has recently been questioned, he rightly regards the plainness of the western side of the transept both at Durham and at Ely as due to the failure of the funds rather than to a recent suggestion that they were not seen in the view of the east end from the nave. There are many instances in which the elaborate work of the medieval carver is only revealed, and photographed, when scaffolding is put up for repairs. Figures in the text include plans, elevations and drawings of mouldings

which are more valuable for detail than photographs. Dr Boase explains, that in the 96 plates embracing over 200 subjects he has preferred to allocate the major number to illuminated manuscripts which are far less accessible to students.

The word manuscripts, in the index, is the clue to Dr Boase's intensive study of English medieval painting in libraries in Great Britain and Ireland, in Europe and in the United States of America. His description of a cross channel style is adopted in the *Catalogue of Illuminated Manuscripts* exhibited in Paris at the Bibliothèque Nationale in the summer of 1954. The general survey of painting in the scriptoria of the great Benedictine monasteries, Christchurch and St. Augustine's at Canterbury, Bury St. Edmunds, St. Albans and Durham is full of interest and value. Some of the more notable manuscripts are described, e.g. the great bibles, the psalter from St. Albans now at Hildesheim, the Ingeborg psalter at Chantilly, the psalter of Henry of Blois in the British Museum. That Henry of Blois was 'for a time' at Cluny is an understatement. His widowed mother, Adela of Blois, took the veil in the Cluniac nunnery of Marcigny in Burgundy in 1109. It is probable that Henry, her fourth son, then entered the monastery of Cluny as a boy. It is generally accepted that he was about thirty when he came to England in 1126 to be abbot of Glastonbury and bishop of Winchester (1129-1171). There can be no doubt that he brought to Glastonbury the manuscript of the Customs of Cluny, entered in a later library catalogue. His splendid gifts to Glastonbury and Winchester are here noted with appreciation. The destruction of the great part of the library at Cluny when the Huguenots attacked the monastery in 1562 is a most serious loss for students of medieval art.

The remarkable stone carving of the local Herefordshire school is described and illustrated. A comparison of the representation of St. George on the tympanum at Brinsop with the equestrian figure, known as a Constantine, on the west front of Parthenay-le-Vieux (dep. Deux-Sèvres, France) does not warrant a recent statement by a younger scholar that the Herefordshire carver had a drawing of Parthenay before him. Parthenay is more clearly illustrated in J. Baum, *Romanesque Architecture in France*, than in G. Zarnecki, *Later English Romanesque Sculpture*.

Dr Boase stresses the shock of contrast seen in the 12th century between the white simplicity of Cistercian churches and the glowing colours of the painted walls of other churches; the cool grey severity of the Norman style, as we see it, was 'a thing unknown to its creators'.

On p. 84 the secular canons of the cathedral church of Laon are called monks in error. A recent excavation on the site of the monastery of Bury St. Edmunds is described in Vol. 108 of *The Archaeological Journal*.

This selective bibliography is of far greater value than a comprehensive bibliography which is sometimes the camouflage of a compiler. ROSE GRAHAM.

THE PLEISTOCENE GEOLOGY AND PREHISTORY OF UGANDA; PART II—PREHISTORY. By C. VAN RIET LOWE, D.Sc., F.S.A. *Geological Survey of Uganda Memoir, No. VI, 1952. Colchester, England.*

This is a book which has been long awaited by prehistorians in Africa and further afield in Europe and America, and is based on the investigations undertaken by the author in association with Mr E. J. Wayland during the latter half of 1939; investigations which were materially assisted by Wayland's pioneer work in Uganda between 1919 and 1939. It is to be regretted that Part I on the Pleistocene Geology was not published at the same time but it is much to be hoped that it will not be long before this volume also makes its appearance.

The extraordinarily rich area round Nsongezi on the Kagera River was the main centre for operations and most of the detailed excavation work was done in this area where the Pleistocene succession is most complete and the deposits can best be studied.

In an introduction which makes most interesting reading the author points out the great debt that we all owe to E. J. Wayland for this pioneer work in the prehistory of north-central Africa, a region in which some of the earliest artifacts have been recovered, the recognition of which we also owe in the first instance to Wayland.

Professor van Riet Lowe gives a summary of the geological facts on which the dating of each of the Stone Age Cultures is based and describes in detail the Nsongezi beds on which in particular the dating of the earlier cultures in large measure depends.

Here for the first time the Kafuan Culture is analysed and described in detail and the various forms are fully illustrated. There may be some who doubt the human origin behind many of the Kafuan forms especially the earlier and simpler ones, but as the author says when a complete series is examined it is no longer possible to doubt even the simplest forms such as the split pebble. Professor van Riet Lowe has made out a very good case for this the earliest of all African Stone Age cultures. When one examines a Kafuan assemblage in a Museum collection one is liable to doubt whether they are really artifacts; it is only when they are considered as a developing complex in their geological context that their human origin becomes really apparent. The earliest occurrence of this culture is in the base of the 270 feet terrace of the Kagera at Nsongezi in what is thought to be either a Pliocene or Lower Pleistocene laterite; these are thus the earliest human artifacts known except perhaps those from the Ain Haneck beds in Algeria. One could however have wished that a simpler classification had been employed than one requiring the adoption of such new terms as hemilith, plagiolith and ortholith.

The stratigraphical development of culture from Kafuan through Oldowan to Chellean is treated fully, and is based on the results obtained from excavation only and not on surface collections. This is one of the comparatively few areas of the continent where a good series of the Chellean stage of the Handaxe Culture occurs in a pure state mixed with later material. An important description of this is given.

Owing to the importance of the now well-known 'M', 'N' and 'O' horizons for dating purposes the author describes the cultural material contained in each of these horizons in detail. One cannot help wondering however if it might not be that, owing to the often shallow nature of the deposits which cover the 'M' and 'N' horizons, later material may have been incorporated. For example the placing of the Lower and Middle Sangoan in the 'M' horizon in the later part of the Kamasian Pluvial.

A valuable description is given of the numerous flake tools which accompany the Acheulean in Uganda which helps to emphasize once again that this culture, in Africa as in Europe, contains a large number of small tools made on flakes.

The book also contains the complete and well-illustrated account of the Sangoan Culture from the type area that we have long been awaiting.

The later cultures—Stillbay, Magosian and Wilton—are described in less detail, and it is obvious that much still remains to be done in Uganda on these cultures. Of considerable interest is the finding of tanged and pressure-flaked arrowheads, presumably related to one of the Late Stone Age cultures of the Northern Congo; but one would like to know more of the associations of these interesting tools, and whether there is any connection here with the Saharan Neolithic.

A failing of the book is perhaps that it takes no account of work published since 1939; but this is a small defect in comparison with the major importance of this work which pays a most justly earned tribute to the brilliant fieldwork of the author and E. J.

Wayland. The book is admirably illustrated from the pens of Mrs Mary Leakey and Mrs Frances Rinford, and contains a sketch map showing many of the sites mentioned in the text and a Table showing the correlation of cultures and geological horizons. This is a work which is essential to all who work in the African field. J. DESMOND CLARK.

OULD BELGIË : van de eerste landbouwers tot de komst van Caesar. By DR M. E. MARIËN. *Antwerpen, de Sikkell*, 1952, pp. 528, 398 illustrations. Price 320 Belgian francs, 280 in paper covers.

At first sight, the statement that the book's greatest disadvantage proves at the same time its value may appear a contradiction—but truly, it is a pity for the English reader that the book is written in Dutch.

Starting with the first farming communities, the book gives a coherent account of Belgian prehistory up to the coming of Caesar. To give a rounded picture, the author extends his account to adjacent territories, recording for instance the essential archaeological data of the Dutch provinces south of the Rhine-Meuse delta and of Luxemburg. He also assigns to each aspect of Belgian prehistory its place and significance in the greater context of Western-European prehistory—a survey of which, clearly composed, serves as a background throughout.

Dr Mariën has taken pains—with success—to conform his narrative to the general intelligent reader, not contenting himself with the dry bones of prehistory alone. Consequently, the general reader in the Low Countries is now in the possession of an all-round and extensive synopsis in Dutch ; but the foreign specialist also can profit by the book. To him, the book may be a reliable guide to Belgian prehistory. In the photographs, the distribution maps and in the accurate designs (the best of which are by the author) he will find an abundance of material hitherto unpublished or at least only accessible in provincial periodicals. Moreover, there is an appendix recording in systematic order the essential bibliography, and data concerning the distribution of finds in the museums, followed by an extensive index. (Which, however, is somewhat inaccurate : e.g. in the references to the illustrations, which should indicate the page concerned, but sometimes give the number of the illustration instead).

A survey from a bird's-eye view may serve to give the reader some idea of the content. The coming in the Meuse-area of the Danubian culture in the period of its Westernmost extension, and its vanishing without leaving behind any cultural inheritance is described in the first chapter. The second chapter deals with the 'Michelsberg' (Western) culture in Belgium, and the question of whether they introduced the extensive flint-mining in the chalk hills along the Meuse (to be compared with the mining of the Windmill-Hill people) or took over this practice from local inhabitants, who were culturally akin to 'Campignien' and 'Northern-Forest culture' people. In the third chapter the author speaks of the different communities which gradually developed from the indigenous mesolithic substratum under 'Northern-Forest culture' and 'Michelsberg' influence. In the fourth chapter we meet the Late-Neolithic representatives of the 'Seine-Oise-Marne' culture and vestiges of the Beaker culture, first identified in Belgium by Dr Mariën in 1948. The sherds found so far appear to belong to some 15 beakers of the B-beaker types. The Bronze Age follows in chapters five and six. A group of Early to Late Bronze Age barrows on both sides of the Belgian-Dutch frontier in the 'Campine' area is of special interest to English prehistory : the author draws the attention to the timber structures and the occurrence of disc-barrows, and their possible context with the Wessex-culture. Since Dr Mariën's book appeared, the results of investigations made into these barrows by Dr Glasbergen have become known, adding considerably to our

knowledge, and changing some current opinions—e.g. concerning the so-called ‘ Dutch-Deverel ’ urns. As this book¹ has been reviewed in *ANTIQUITY*, we will however refrain from amending Dr Mariën’s text on these points. The arrival of the Celtic warriors, their subsequent role in Belgian prehistory and the first contacts with Teutonic tribes form the subject of the final chapters.

On the whole, we are confronted with a highly convincing picture of Belgian prehistory, bearing witness to the constructive mind of the author, who has not let himself be disconcerted by the defectiveness of so many of his sources. Certainly the unsuspecting reader will not be aware of many an underlying problem, but I do not think the author is to be blamed for that, in view of the general character of the book. Those who want to go into these problems can read the separate articles by the author, which are quoted in the appendix.²

In the meantime, Dr Mariën is reported to be writing a book on ‘ Oud België ’ in palaeolithic and mesolithic times. The eagerness with which we are looking forward to this second book will be readily understood by everybody who has made the acquaintance with the first volume.

But I should not finish without having said a word in praise of the publisher ; the generally good production and the moderate price of this profusely illustrated volume call for our gratitude.

J. D. VAN DER WAALS.

AN INTRODUCTION TO ETRUSCAN ART. By P. J. RIIS. *Ejnar Munksgaard, Copenhagen, 1953. 144 pages, 82 plates.*

It is encouraging at a time when artists and aesthetes have so hysterically taken up the Etruscan to hear so calm and reasonable a voice as that of Mr Riis. Especially now an introduction to Etruscan art should bring back into the foreground clearly and succinctly fundamental ideas which are apt to have been forgotten ; this is even more so when the introduction is a collection of short essays and not a general survey. Riis very correctly emphasizes both the dependence of Etruscan sculpture and painting on Greece, and also its provincial character despite its foreign flavour. But he might have made it clearer that the impulses from Greece came in successive waves, and that the Etruscans did not, for example, develop their own classic style from the archaic.

His treatment of sculpture and painting is a superior performance, but his discussion of architecture falls short of what one expects of him and is based on dubious, if fashionable, notions. He follows modern Swedish scholars in finding the origins of the Tuscan temple and the atrium house in the *liwān-plan*. This is a fragmentary theory at best, since it depends entirely on similarities in the ground-plans without taking into account the roofing or the general appearance of a building. Thus the courtyard of the *liwān-house* becomes the *pronaos* or the forecourt of the Tuscan temple, the atrium with the impluvium in a Tuscan atrium complex, and the central hall of a tomb. An alternative—and certainly far easier—theory, that the ancestor of temple and atrium is the primitive deep-roofed hut, is mentioned only in passing and not discussed. As illustration of the Etruscan plan we are offered, instead of the *Tomba della Casa con Tetto Stramineo*, the

¹ W. Glasbergen, *Barrow excavations in the Eight Beatitudes*. Groningen, 1954. Reviewed in this *ANTIQUITY*, pp. 41–2.

² Of later date : ‘ Tessons de poterie énéolithique de l’Abri des Aulnes, à Dave ’, in : *Études d’Histoire et d’Archéologie Namuroises*, dédiées à Ferdinand Courtoy, 1952.

Dr Mariën is preparing a volume of the *Dissertationes Archaeologicae Gandenses*, under the title of ‘ La nécropole de Court-St-Étienne et la civilisation de Hallstatt en Belgique ’.

oldest of the tombs of Cervetri, the later 'liwān-plan' Tomba dei Vasi Greci. Riis thinks that the ancestor of the Etruscan atrium was an oriental courtyard, the idea of which was brought with them in migration. The archaeological evidence, newly reinforced, suggests rather strongly that the original atrium was the *atrium testudinatum* and that the *atrium tuscanicum* was developed by the Etruscans only some time after they had come in contact with peristyle houses in South Italy. (In stratigraphic excavations no impluvium system older than the Tufa Period has been discovered in Pompeii).

Riis is also loath to give Rome credit for great influence on Etruscan architecture before 100 B.C., the time he fixes for the crystallization of the first Roman style. Not only does he think that the walls of Volterra antedate the 'Servian' walls of Rome, but he does not see that the great impetus in wall-building in central Italy accompanied Roman colonization, and that it was the Romans who experimented in the development of gates and towers. In the case of Hellenistic temple architecture the façade of the Tomba Ildebranda of Sovana represents for Riis 'an Etruscan temple façade of about 200 B.C.' yet an older façade of this type, it seems to me, is that of the so-called Temple of Peace on the forum of the Latin colony of Paestum, which also has Tarentine connections. Recent excavations show more and more evidence that Hellenistic architecture passed from South Italy to Etruria through the middlemen of the Roman colony.

On the other hand Riis writes splendidly and convincingly when he speaks of the connections of Etruscan art with the art of South Italy in the archaic period. His brief discussion of Capuan art is highly suggestive, and we should like to hear more. His treatment of the Po valley is equally fine, and it is good to find the importance of Spina as a transmitter of Greek art to the north properly assessed. L. RICHARDSON, JR.

FREEDOM OF THE PARISH. By GEOFFREY GRIGSON. $8\frac{1}{2} \times 5\frac{1}{4}$. London: Phoenix House Ltd. pp. 208, with 19 plates. 1954. 21s.

This book, describing the author's native parish, Pelynt, Cornwall, between Fowey and Looe, should be read by anyone who desires to seize the essential spirit of a typical rural parish and understand the interest enshrined in its fields and houses, its rivers and woodlands. It is not an orthodox parochial history—manorial descents and such details must be sought elsewhere—but a vivid, charmingly written and intensely personal account, which brings to life the records of the past and present. C.A.R.R.

THE RUINS OF ZACULEU, GUATEMALA. By RICHARD B. WOODBURY and AUBREY S. TRIK, with an Introduction by JOHN M. DIMICK. *United Fruit Company*, 1954. 2 volumes, xviii + 460 pages, 168 text figures, 3 maps and 129 plates (in separate volume).

This elaborate publication on the excavations carried out at Zaculeu in the Highlands of Guatemala is more than an ordinary site report for it is a testimonial to a unique undertaking by the United Fruit Company. Early in 1946 this business firm, utilizing the best archaeological advice obtainable, picked on the site for restoration as a National Monument. With the completion in 1949 of four field seasons under expert management the impressive reconstruction of nearly half the more than forty structures at the site was turned over to the people of Guatemala.

Zaculeu, a Highland Maya site not far from the modern village of Huehuetenango, was occupied for more than 800 years from Early Classic times till it was overrun by the Spanish conqueror Alvarado in 1525. Of the half dozen or so sites in the Highlands including Kaminaljuyu, Zacualpa, Tajumulco and Nebaj which have been adequately

studied and written up, Zaculeu is undoubtedly now the best known in terms of total excavation since some twenty-three of the forty-three structures at the site were investigated. This work ranged from merely clearing the corners and outside of some to rather complete trenching of other structures both large and small.

In working on the main structures the principal objective of the field work was to restore the last construction stage in these almost invariably complex buildings while still obtaining knowledge of the earlier stages. This end was accomplished by narrow trenches on the medial axes of the structures after the exterior had been cleared. Previous experience in the area had shown this method advantageous in following the rebuilding periods. Further the main burials accompanying these periods generally occur here. This technique was highly successful and showed as many as fourteen different building periods in a single structure together with numerous burials.

Woodbury and Trik define four successive cultural phases at the site which are arranged alphabetically from early to late: Atzan, Chinaq, Quankyak, and Xinabahul. The site was first occupied in the Atzan phase during Early Classic times. The major constructions were started at this time but little remained of these early structures. This phase is roughly equivalent to the Esperanza phase at Kaminaljuyu and the latter part of the Balam phase at Zacualpa.

The Chinaq phase is poorly represented but this may be due to chance in selecting structures for excavation. It is of Late Classic date and is similar to the Amatlé-Pamplona phases at Kaminaljuyu and the Pokom phase at Zacualpa. The Quankyak phase is post-Classic and is very well represented at Zaculeu in structures and artifacts. A characteristic trait of the early part of the phase is Tohil Plumbate ware which indicates its relation to the Tohil phase at Zacualpa. The pre-Conquest period is covered by the Xinabahul phase which closes with the Spanish arrival in 1525. It is interesting to note that some of the latest structures were left unfinished by their Mam builders. This phase correlates with the Yaqui phase at Zacualpa.

The main body of the report is divided into eight sections beginning with the Introduction by Dimick giving the background of the excavations and an ethnohistorical account of the history of Zaculeu by Nathalie F. S. Woodbury. Four sections by Trik follow which deal with the site description, a discussion of the architecture and building periods, and descriptions of the graves and caches found in the structures. Richard Woodbury's contribution is a very thorough description of the artifacts with pertinent comparisons and comments. This is the most lengthy section taking up more than half the text. The main body of the work is completed by a short summary of the important phase traits by the co-authors. Three special contributions on physical anthropology are appended with Charles W. Goff presenting a brief anthropometric study of the modern inhabitants of the area and an article concerned with the occurrence of syphilis in pre-Columbian times at Zaculeu as shown by two crania. T. Dale Stewart concludes the monograph with a study on the skeletal remains of the some 249 individuals recovered in the excavations.

The volumes are handsomely bound in cloth, and the format is that used by the Carnegie Institution of Washington in its archaeological reports. One departure from this form was to include all the photographs in the slim second volume. This separation was done 'to facilitate their use in conjunction with the text', a noteworthy objective which seems to have been fairly successful. The line drawings in the text are excellent including both profiles and restored isometric projections of the structures and a great number of the whole pots and other artifacts. The photographs are reproduced by half-tones on glossy paper and include two colour plates. They are, unfortunately, very uneven in

quality. Some of the site-photographs of structures are very poor and mar an otherwise superior presentation of data.

An over-all consideration of the monograph leaves one with the impression of a large undertaking very masterfully completed. However, with due respect to the vast amount of material uncovered and described, one cannot help feeling that the final conclusions are presented with a bit too much brevity. A careful reading of the complete text, especially the section on artifacts, gives many leads to external relationships in Guatemala and Mexico during the long time span encompassed, but these connections are nowhere adequately summarized. Nevertheless, these volumes take their place beside the monumental work on Kaminaljuyu by Kidder, Jennings, and Shook, which they resemble in form, as a major contribution to the archaeology of the Highland Maya.

STEPHEN WILLIAMS.

UNIVERSITY OF LONDON. Tenth Annual Report of the Institute of Archaeology. pp. 62 with 3 plates and numerous figures in text. London: published at the Institute. 1954. 5s.

Following the normal practice this report contains, in addition to the formal matter, a number of substantive papers. Professor Childe discusses the socketed celt in Upper Eurasia, demonstrating, in opposition to the classical theory of Montelius, its derivation from the folded adze (or axe) of metal. This evolution is attributed to the Eastern Russians at a date shortly before 1300 B.C. A. M. ApSimon analyses the Wessex dagger graves classifying them into an earlier stage (Bush Barrow type), dated to c. 1570-1500 and a later (Camerton type), current from c. 1500-1370. There are shorter articles on neolithic pottery from a submerged surface at Clacton and on a new method of treating bronze corrosion.

C.A.R.R.

LE NÉOLITHIQUE OCCIDENTAL ET LE CHALCOLITHIQUE EN FRANCE: esquisse préliminaire. By STUART PIGGOTT. *L'Anthropologie* LVII, 1954, 401-443: LVIII, 1-28.

This is a major contribution to European prehistory, fully illustrated by a sketch map of the pottery-types and drawings of them, a tabular correlation of neolithic cultures down to and overlapping the Early Bronze Age, and a list with bibliography (and present location) of sites and finds of the Chassey culture in France. It is based on extensive travels and the visiting of museums in France, as well as on the printed accounts. We say 'printed' advisedly, because so much essential information is buried in totally inaccessible pamphlets, locally printed for the person who found or acquired the objects or dug them up. No criticism that we could make of French backwardness could be more severe than that of one of the Editors of *L'Anthropologie*; commenting on Professor Piggott's article M. Vaufrey says that there is no Frenchman who could have undertaken to write it, and, if there were, none of the responsible organisations would have provided his travelling expenses.

O.G.S.C.